SMITHSONIAN INSTITUTION

UNITED STATES NATIONAL MUSEUM

REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE YEAR ENDED JUNE 30, 1946

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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington D. C., October 15, 1946.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum and upon the work accomplished in its various departments during the fiscal year ended June 30, 1946.

Very respectfully,

ALEXANDER WETMORE,
Director, U. S. National Museum.

THE SECRETARY,
Smithsonian Institution.

CONTENTS

	Page
Operations for the year	1
Appropriations	1
Collections	2
Explorations and field work	3
Visitors	7
Library	7
Publications and printing	9
Photographic laboratory	10
Buildings and equipment	11
Meetings and special exhibits	12
Changes in organization and staff	13
Detailed reports on the collections	16
Department of anthropology	16
Department of biology	29
Department of geology	50
Department of engineering and industries	62
Division of history	73
List of accessions	78
List of Museum publications	113

REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE FISCAL YEAR ENDED JUNE 30, 1946

By ALEXANDER WETMORE

Secretary of the Smithsonian Institution, Director of the United States National Museum

OPERATIONS FOR THE YEAR

APPROPRIATIONS

FUNDS for the support of the National Museum for the fiscal year 1946 were provided by the appropriation "Salaries and expenses, Smithsonian Institution," in the Independent Offices Appropriation Act approved May 3, 1945, and in two supplemental appropriations. The expenditures are summarized as follows:

Project "National Museum"	$411,861
Project "Maintenance and operation"	536,192
Project "Printing and binding"	43,000
Total available for year	991,053

The project "National Museum" provides for the increase, study, exhibition, and preservation of the national collections in natural history, anthropology, engineering and industries, and history. The project "Maintenance and operation" provides for maintenance, repair, operating, and guarding of all the buildings of the Smithsonian group. The project "Printing and binding" covers the cost of publications of the National Museum and necessary binding of books, periodicals, and pamphlets in the Museum library. There was no provision for change in personnel available for Museum activities. Under the project "National Museum" hours of duty were reduced from 48 to 40 per week on September 10, 1945. Overtime hours were maintained during the year for the project "Maintenance and operation."

There has been a steady acceleration of the Museum's activities through the year as operations normal to peacetime one by one have been resumed or augmented in the change from the period of war. Return of the younger staff members from service with the armed forces has accelerated this change. And for the first time in several

years it has been possible to consider appointees for numerous scientific positions that have been open. These matters were well in hand at the close of the period.

The space situation has been discussed annually in these reports and has become more and more acute. The Natural History Building requires expansion, and new structures are necessary to replace the old Museum building on the south side of the Mall. These should include a building for engineering and industries, with appropriate space for aviation, and one for history.

These needs have been under careful consideration and have been included in considerations of the Federal Works Agency. Authorization for them is included in H. R. 4276 under title II, section 202. The Secretary and C. W. Mitman, head curator of the department of engineering and industries, appeared before the Committee on Public Buildings and Grounds, House of Representatives, on October 18 and presented the Museum building needs in detail.

The proposals, therefore, are included for consideration in the next public works program, which at the moment, however, is in abeyance due to shortages in materials.

Though return of workers from the armed forces has been of major assistance, the total personnel for the Museum is considerably below the needs of the organization. The great and irreplaceable values found in our collections fully warrant that these needs be pressed before committees concerned with our finances. The needs are found in all levels of employment from the professional groups down.

COLLECTIONS

There has been a steady flow of new material to the Museum's collections during the year; in fact, there was a 60-percent increase in number of individual specimens received over 1945. This increase was felt in all departments except the department of engineering and industries, where a decrease in number of specimens received was attributed chiefly to the unsettled conditions in industry following the end of the war. Many of the accessions continued to come from members or former members of the armed services working in regions hitherto not well represented in the Museum's collections. Many also, as usual, were transferred from other governmental agencies.

New material came in 1,594 separate lots, with a total of 379,306 specimens, distributed among the 5 departments as follows: Anthropology, 9,026; biology, 320,037; geology, 45,163; engineering and industries, 1,480; history, 3,600.

For examination and report 1,193 lots of specimens were received, covering all the fields embraced in our laboratories, an increase of 71 lots over last year. Some of this material is returned to the senders,

and some that is especially desirable is retained for the Museum's collections.

Gifts of duplicates to schools, museums, and other institutions numbered 3,090 specimens. Exchange of duplicate material with other collections amounted to 21,891 specimens, and 1,028 specimens were transferred to other governmental agencies. Loans for scientific study to investigators outside of Washington totaled 41,526 specimens. The summary of the collections given below has been adjusted to reflect additions and eliminations from the various series and represents the material cataloged at the close of the fiscal year.

Anthropology	728,318
Biology	14,661,177
Geology	2,751,696
Engineering and industries	144,050
History	534,765
Total	18,820,006

EXPLORATIONS AND FIELD WORK

Although field explorations during the year were not extensive, they represented a return toward the regular schedule of such activities in times of peace.

Dr. E. A. Chapin, curator of insects, in connection with the State Department's program for the promotion of cultural relations with scientists in other American countries, left on April 25 for Colombia. During May he was at the Instituto de Ciencias Naturales of the National University in Bogotá, where he was occupied in consultations with government entomologists in connection with cooperative investigations, particularly on certain groups of Coleoptera of economic importance. There was opportunity at the same time for field studies in a variety of climatic zones ranging from Villavicencio in the tropical lowlands at the eastern base of the Andes to the high mountain passes above Bogotá. In June Dr. Chapin continued to Medellín, where he was occupied for several days with Prof. F. Luis Gallego in examining insect collections at the Facultad de Agronomía. This was followed by similar work in Cali and Palmyra with Belisario Losado, and at Popayán in the Universidad del Cauca. He returned to Washington on June 30.

Dr. Robert R. Miller, associate curator, division of fishes, was assigned to a survey of the fish and game resources of Guatemala, a cooperative project of the Fish and Wildlife Service of the Department of Interior and the Guatemalan Government, with the participation of the Smithsonian Institution. Investigations began in March and continued until the end of May, Dr. Miller being occupied mainly with studies of the fresh-water fishes of the plateau area. Collections

were made principally above 3,000 feet covering many lakes and streams. In addition there was opportunity for briefer studies along the middle Motagua River and in Lake Ysabal. The work in the main was in the nature of reconnaissance, with expectation of continuing in greater detail another season. The present collections, now under study, are yielding much data of interest.

In connection with the atom-bomb tests at Bikini, Dr. Leonard P. Schultz, curator of fishes, and Dr. J. P. E. Morrison, assistant curator, division of mollusks, left in February to begin a detailed survey of the fauna of the atoll. It was expected that a careful check would be made of conditions following the bomb explosions. The studies of Dr. Schultz are concerned with fishes in the lagoon and along the reefs to obtain data on the kinds present and on their relative abundance. Dr. Morrison is occupied with mollusks and other marine invertebrates on the reefs and also with detailed collections of the land animals present, including the birds. There has been opportunity also for comparative studies at several other atolls in the Marshall Islands. The extensive series of specimens already obtained will serve as an index to the forms found and will be especially important also as the first collections in the Museum from this region. This work was still under way at the close of the year and will be reported in more detail next year.

At the beginning of March Dr. Alexander Wetmore, Secretary of the Smithsonian Institution, accompanied by W. M. Perrygo, scientific aide, went to Panama, where they were occupied briefly in checking on the fauna on San José Island in the Perlas group, where the Smithsonian made extended studies in 1944. Following this they examined the Canal Zone Biological Area on Barro Colorado Island in Gatun Lake, an agency for which Dr. Wetmore serves as executive officer. On March 14, through the assistance of Maj. Gen. H. R. Harmon, commanding general of the Sixth Air Force, they proceeded by plane to the auxiliary airfield at Jaqué in eastern Darién. Here they remained until April 16 making detailed collections and studies of the bird life of the coastal area. Ranges of broken hills and the lowlands along the Río Jaqué were a fertile field, so that the 640 specimens obtained during 30 days of field work include representatives of 170 species. These supplement excellently earlier collections under Smithsonian auspices in eastern Darién. The party returned to Washington on April 21.

M. A. Carriker, Jr., traveling under the W. L. Abbott fund of the Smithsonian Institution, this season covered the high páramos of the Sierra Nevada de Santa Marta, Colombia, entering the area in January through San José and San Sebastián de Rábago. Traveling in part with pack oxen, Mr. Carriker worked first at Chinchicuá

where there was some forest in addition to the open slopes. At the beginning of February he camped at Simínchucuá at a higher elevation where morning temperatures were frequently at freezing, with ice not uncommon. The next camp, called Mamancanaca, was at 10,500 feet in a region of glaciated valleys and old moraines. Four lakes at successively higher levels lay below the snow fields at 15,350 feet. Birds in the main were found below 12,000 feet. A further camp was located early in March at 10,000 feet on the headwaters of the Río Guatipurí, and in April still another farther down the same river at the little Indian hamlet of Chendúcua. The expedition was highly successful, obtaining fine series of the high-mountain birds, including many not previously represented in the Museum and several that are new to science. Other collections made at lower elevations give representation of the better-known Santa Marta races, furnishing a highly desirable addition to our series from northern Colombia.

In the department of geology Dr. G. A. Cooper, curator of invertebrate paleontology and paleobotany, accompanied by Dr. J. Brookes Knight, research associate, left on June 12 for Austin, Tex., and from there proceeded by auto to the Glass Mountains in west Texas. At that point the party was joined by Dr. R. C. Moore, of the University of Kansas. The three cooperated in collecting blocks of Permian limestone containing fossils in various parts of the mountains. Dr. Preston E. Cloud joined the party on July 19 and served as leader for further work in the Central Hill country of Texas to collect Mississippian, Devonian, and Pennsylvanian fossils. After a week in this region the party divided, Dr. Moore to return to Kansas and Dr. Cooper and Dr. Knight to join Mrs. J. H. Renfro and Millicent Renfro for 4 days of collecting in the incomparable Pennsylvanian fossil deposits of Jack County, Tex. Work in the field ended on August 5 after more than 5 tons of blocks of silicified material, to be cleaned by etching with acid, and about 5,000 specimens of invertebrate fossils from central Texas had been obtained.

On October 1, Dr. Cooper, accompanied by Associate Curator Byron N. Cooper and Y. Wang, a member of the Geological Survey of China working temporarily at the National Museum, left for the southern Appalachians and the Central Basin of Tennessee. Dr. C. O. Dunbar and Percy Morris, of Yale University, joined the party at Woodstock, Va. After several days in southwestern Virginia they continued west to Murfreesboro, Tenn., and then to east Tennessee for work near Knoxville. From this vantage point forays were made into various parts of the Ordovician belts of east Tennessee for collecting and study. On October 16 Wang and the two Coopers continued south to Pratts Ferry about 35 miles south of Birmingham, Ala., and from

here worked northeast along the Ordovician belts through northeastern Georgia and on into eastern Tennessee and Virginia. The party returned to Washington on November 14. This trip proved most profitable in checking on Ordovician stratigraphy. About 5,000 specimens, including considerable new material, were collected.

On February 7, 1946, Dr. Cooper again left Washington for Austin, Tex., where he joined Dr. Preston E. Cloud, of the Geological Survey, for further studies and collecting in the Central Hill country. The two visited many localities in the neighborhood of Burnett, San Saba, Mason, and Brady. Many fine Mississippian fossils were collected and Pennsylvanian fossils were also obtained in several places. Dr. Cooper returned to Washington on February 24 with some 5,000 specimens that form a fine representation of these beds.

The Museum's part of the three geological expeditions described above was financed from the income of the Walcott fund.

Dr. C. L. Gazin, curator of vertebrate paleontology, with Franklin Pearce, scientific aide, as assistant, left Washington on May 23, in a truck available through the cooperation of the United States Army, on an expedition into the western States, to secure additional fossil mammal remains from Paleocene deposits and to make a further collection of fossil lizards from the Cretaceous in central Utah, as well as to continue collecting in the Middle Eocene Bridger beds of southwestern Wyoming. These formations have been untouched by collecting parties during the war years, and it is expected that weathering will have exposed many additional fossils. The expedition will continue into the next fiscal year, when several fossil localities in the Wind River Basin reported by geological parties of the United States Geological Survey will be investigated. The cooperation of the Army in the loan of the truck is much appreciated, since it proved to be a large factor in making the expedition possible. This is another project under the Walcott fund of the Smithsonian Institution.

Dr. W. F. Foshag, curator of mineralogy, spent the first quarter of the year in Mexico, concluding field work there, and returned to Washington on October 8. This work on the mineral resources of that country and on Parícutin Volcano was a joint project of the National Museum and the United States Geological Survey in collaboration with the Committee for the Study of Mineral Resources of Mexico. Field studies were completed on the fluorspar deposits of the Tasco District, State of Guerrero, the mercury-copper deposits of Las Fraguas, and the copper deposits of Oropeo, State of Michoacán, with the assistance of Mexican geologists of the committee. Field work in geochemical studies at Parícutin Volcano was continued.

On request from General MacArthur, Dr. Foshag and E. P. Henderson, associate curator in mineralogy, on May 25 went to Tokyo

to undertake classification of the gem stones under the Army's jurisdiction.

VISITORS

Now that normal travel conditions have returned, the number of visitors to the Museum buildings is gradually rising to its prewar level. An increase of 384,877 visitors was recorded this year over last, the totals being 2,115,593 for 1946 and 1,730,716 for 1945. June 1946 was the month of largest attendance, with 246,012 visitors; August 1945 the second largest, with 216,801. Records for the four buildings show the following numbers of visitors: Smithsonian Building, 430,760; Arts and Industries Building, 852,080; Natural History Building, 606,310; Aircraft Building, 226,443. A complete summary of attendance is given in table 1:

TABLE 1.—*Visitors to the Museum buildings during the year ended June 30, 1946*

Year and month	Smithsonian Building	Museum buildings			
		Arts and Industries Building	Natural History Building	Aircraft Building	Total
1945					
July	35,232	68,026	52,822	18,441	174,521
August	46,498	87,009	59,371	23,923	216,801
September	39,661	76,732	53,941	22,189	192,523
October	36,617	72,112	51,890	17,608	178,227
November	32,522	65,979	46,189	17,336	162,026
December	18,672	32,954	27,988	10,383	89,997
1946					
January	23,205	42,842	34,634	12,586	113,267
February	29,584	54,402	41,027	15,286	140,299
March	40,322	75,884	49,159	21,443	186,808
April	44,395	87,999	61,835	20,511	214,740
May	37,038	85,175	60,933	17,226	200,372
June	47,014	102,966	66,521	29,511	246,012
Total	430,760	852,080	[1] 606,310	226,443	2,115,593

[1] Not including 12,766 persons attending meetings after 4:30 p. m.

LIBRARY

The gradual transition from wartime to peacetime conditions, still going on, made no marked difference in the kind or amount of work done in the Museum library during the past year. There was naturally less reference use of the library by war agencies, but returning members of the Museum's own scientific staff, together with members of the services still detailed to work on special projects in the Museum, kept the library staff as busy with reference and bibliographical work as during the war years, while the number of books and periodicals circulated differed by only a few volumes from last year.

The most immediately interesting accessions of the year were the foreign journals coming to us in ever-increasing numbers as shipping conditions improved and as interrupted exchange relations with European museums and scientific institutions began to be reestablished. Many of these were token sendings of a few publications only, but there were also some larger accumulations of European publications issued during the war.

Members of the scientific staff and other friends of the Museum continued to make generous gifts to the library. Especially notable among these gifts is the late Charles W. Gilmore's private library of books and pamphlets on vertebrate paleontology which Mrs. Gilmore so graciously presented to the division of vertebrate paleontology. The collection, which has not yet been cataloged or fully counted, consists of more than 600 books and pamphlets, in addition to 94 pamphlet boxes full of reprints and separates. These latter constitute an especially useful addition to the sectional library of the division.

By transfer from the National Academy of Sciences to the Smithsonian Institution, a considerable number of important publications needed to complete gaps in the Museum library's files were received.

Of other publications added during the year, 889 books and 140 periodical subscriptions were purchased, while 371 volumes and 4,168 parts of serial publications were received in exchange.

Most of the publications purchased for the library are wanted either for immediate use or because they contain information likely to be needed frequently for reference. Their cataloging consequently takes routine precedence over that of other material and is generally well kept up. Such was the case during the past year, although the need of an additional subprofessional assistant continued to be acutely apparent in the elapsed time between the completion of the professional cataloging of the books and the making and filing in the catalog of the cards constituting a complete record of them. Most of the other current publications were also cataloged, but it was not possible to begin the cataloging of the special collections received last year or of the Gilmore collection. There are always more incoming publications than the present staff of catalogers can handle immediately upon receipt.

The checking of sets of serial publications for missing parts, the making of "want" cards, and the correction of old records proceeded satisfactorily together with the preparation of complete volumes for the bindery. A smaller allotment of funds for binding this year and the rise in binding prices prevented the sending of many of the current volumes that were ready. The services of a temporary appointee skilled in book repair again made it possible to repair and treat many of our fine old books at comparatively little expense. It is fortunate

for the library that this temporary position is now to be made permanent.

In the Arts and Industries Building the work of making a detailed inventory was continued as time permitted, and 44 shelves were checked with attendant revision of catalog and shelf-list cards.

The most urgent problem of the Museum library—the matter of shelf-room—continues to remain unsolved. The saturation point of comfortably filled shelves was reached long ago, and the supersaturation of overcrowding and double shelving has arrived at such a point that a mounting overflow of books and periodicals that cannot be shelved at all is inevitable unless some relief can soon be provided.

The second and equally serious of the larger unsolved problems is the cataloging "backlog." By a rough estimate there are 177,000 volumes that are so incompletely or inaccurately represented in the catalog that a prolonged search and the use of a lively imagination are not infrequently necessary to find out whether the library has a copy of a requested book, or one covering information on a given subject. As stated in last year's report, this cataloging "backlog" is far too large and complex to be eliminated by the regular staff of catalogers within any predictable future time. It should be undertaken as a special project with a special temporary staff of catalogers engaged to complete it within a specified time.

Summarized Statistics

Accessions of cataloged volumes	2,772
Volumes, pamphlets, and maps cataloged or recataloged	3,698
Periodical parts entered	6,303
New exchanges arranged	142
Volumes sent to the bindery	770
Volumes repaired in the Museum	1,010
Circulation of books and periodicals, main library	8,071
Publications sent to sectional libraries for intradivisional circulation and filing	4,538

PUBLICATIONS AND PRINTING

The sum of $43,000 was allotted the National Museum for its publication requirements during the year 1945–46, the same as for the previous year. Of this, $34,000 was used for printing Bulletins, Proceedings, and Annual Reports; $5,000 for binding; and $4,000 for the salary of the Museum printer. Thirteen publications were issued—2 Annual Reports, 6 Bulletins, and 5 Proceedings papers. A list of these is given on page 113. Volumes bound totaled 770.

The distribution of volumes and separates to libraries and individuals on the regular mailing lists aggregated 25,185, while in addition 7,702 copies of publications issued during this and previous years were supplied in response to special requests. The mailing lists have been carefully revised to avoid loss in distribution.

The editor, Paul H. Oehser, continued to serve as chairman of the Efficiency Rating Committee of the Smithsonian Institution and devoted considerable time to the efficiency-rating program. He was elected also a member of the American Documentation Institute, representing the Smithsonian. On January 18, 1946, Mr. Oehser was made assistant chief of the Editorial Division, Smithsonian Institution, but will continue as editor of National Museum publications. In connection with the observance of the Smithsonian Institution Centennial, he guest-edited the August 9, 1946, issue of the magazine *Science*, which was devoted to historical accounts of the Institution's contributions to research during the past hundred years.

Indexing.—Miss Gladys O. Visel, editorial clerk; Mrs. Marguerite W. Poole, information clerk; and Mrs. Phyllis W. Prescott, clerk-stenographer, continued with the indexing work that has gradually devolved upon the editorial office. Mrs. Poole, as time permitted, continued work on the general index of Museum publications begun several years ago. She also indexed part 10 of Bulletin 50, Birds of North and Middle America, in press at the end of the year. Mrs. Prescott prepared the index for Proceedings volume 95, and this is soon to be sent to the printer. During the last half of the year work was begun in the Editorial Division on the preparation of a complete list of Museum publications, with author-title index, much of the work of this compilation devolving upon Miss Visel. It is planned to publish this list as a Museum bulletin as a part of the celebration of the Smithsonian Institution Centenary.

Museum print shop.—As in previous years, Frank W. Bright was detailed from the Government Printing Office to print Museum and herbarium labels and special forms at the Museum print shop, which is a branch of the Government Printing Office located in the southwest corner of the Arts and Industries Building. Mr. Bright completed 131 of the 154 requisitions submitted for printing during the year; 11 that were submitted during the previous fiscal year were likewise finished, making a total of 142 for the year. Of the uncompleted requisitions, 16 represent large exhibition labels or specimen labels, involving much hand-setting of type or long press runs. The remaining 7 requisitions were submitted too late in the year for completion before June 30. Though reasonably up to date, the work of the print shop is handicapped by lack of sufficient help for maximum production.

PHOTOGRAPHIC LABORATORY

Under a cooperative arrangement the photographic laboratory does work for the Smithsonian proper, the Bureau of American Ethnology, the National Collection of Fine Arts, and the National Zoological Park, as well as for the National Museum. During the year the fol-

lowing materials were processed by the laboratory under this arrangement: 2,438 negatives made; 10,432 prints made; 1,371 enlargements made; 259 slides made; 101 slides mounted; 59 kodachromes made; 22 rolls of film developed; 6 film packs developed; 49 paper negatives developed; 15 cloth mounts made; 31 negatives opaked; 11 color prints made; 98 negatives retouched; 133 dry-mounts made; and 9 cut films developed. In addition considerable time was spent by the staff in layout work preparatory to photographing. Forty-eight microfilms and 133 photostats were furnished by the Army Medical Museum in exchange for 14 negatives and 22 prints. In spite of the end of the war and the consequent lessening of photographic work required for our war-effort activities, the work requisitioned by the various branches of the Institution still taxes the resources of the laboratory, both in equipment and manpower. Much modern equipment is badly needed, although photographic supplies are now being delivered with more dispatch than during the war years in spite of continuing shortages.

BUILDINGS AND EQUIPMENT

Repairs and alterations.—Routine repairs engaged most of the time of the skilled labor force. Several important pieces of work were undertaken on the exterior of the Smithsonian Building: The old metal finial on top of the west north tower was removed and a new copper finial installed; 42 storm sashes were made and permanently attached over the clear story windows in the connecting hall between the main hall and the chapel, to prevent water damage to the interior walls; emergency repairs were made to the eight sections of wooden louvers on the flag tower to prevent injury to the public from falling boards. New copper louvers, measuring 17½ inches wide by 29 feet 11 inches high, were made in the sheet metal shop during the winter for installation during the early part of the next fiscal year.

Heat, light, and power.—Electric current used during the year amounted to 1,513,769 kilowatt-hours. This figure represents 30,370 kilowatt-hours decrease from 1945, due to the "brown-out" proclaimed during the soft-coal strike, when current consumption was held to the absolute minimum.

Steam consumption was held to minimum requirements during the year, and as the result of this economizing and the fact that temperatures during the heating season were slightly higher than in 1945, the steam consumption was 3,722,088 pounds less than 1945. Total steam consumption for the year was 53,399,800 pounds.

Ice production.—The Museum ice plant produced 173.9 tons of ice at a cost of $1.74 per ton, exclusive of labor. The plant was closed down 12 days during April 1946 for overhauling. A supply of ice to last during this period was stored prior to the closing down of the plant, and so it was not necessary to purchase ice.

Fire protection.—Of the $1,312.95 spent for fire protection, $1,007.60 was used for the purchase of new equipment. The principal items purchased were 13 carbon dioxide extinguishers and 1,400 feet of 1½-inch linen hose, complete with couplings, nozzles, and hose racks for replacement of existing hose in the Smithsonian Building. Inspections of apparatus were made each month, and soda and acid extinguishers were discharged and recharged.

Furniture and fixtures.—Furniture acquired during the year consisted of 23 exhibition cases and bases and 328 items of storage, office, laboratory, and other furniture. On hand on June 30, 1946, were 3,558 exhibition cases and 20,742 pieces of storage, office, laboratory, and other furniture; 121,137 drawers, boxes, and wing frames.

MEETINGS AND SPECIAL EXHIBITS

The Museum continued to make available the auditorium and lecture room of the Natural History Building to educational, scientific, welfare, and governmental organizations and groups for meetings and lectures. During the past year 233 groups availed themselves of this opportunity.

The foyer and adjacent space in the Natural History Building customarily used for special exhibits were in constant use except during September 1945 when the exhibit spaces were redecorated. The 11 special exhibits were:

July 1 to August 31, 1945: Exhibition by the Boy Scouts of America of handicrafts of the various Cub Packs based on the activities during each of the months of the year.

October 1 to 31, 1945: Exhibition of oil portraits of 27 of the "Flying Tigers" of Chinese war fame in four alcoves. A formal opening of the exhibition was held on October 4.

October 7 to 31, 1945: Exhibition of Nicaraguan sculpture using wood, ceramic, and marble, by Genaro A. Liro, under the auspices of the Pan American Union.

November 1 to 30, 1945: Exhibition of oil and water-color paintings held under the auspices of the District of Columbia Federation of Women's Clubs.

December 1, 1945, to January 31, 1946: Exhibition of models of famous battleships and cruisers, held by the division of history.

January 1 to 31, 1946: Exhibition of oil portraits by Alfred Jonniaux, held under the auspices of the Belgian Embassy.

February 1 to 24, 1946: Exhibition of "A Century of the Greeting Card," showing the greeting cards of the past 100 years.

March 1 to 31, 1946: Exhibition of oil paintings and water colors by the American painter Charles P. Gruppe.

April 1 to 30, 1946: Exhibition of enlarged photographs and handicrafts, made by students of the School of Arts Crafts of Bangkok, Siam.

May 1 to 31, 1946: Exhibition of oil and water-color paintings and sculpture by members of the National League of Pen Women.

June 7, to 16, 1946: Exhibition of oil and water-color paintings in a scholastic calendar art competition sponsored by the Washington Post.

CHANGES IN ORGANIZATION AND STAFF

The end of the war, and the ensuing Order of the President directing the Civil Service Commission to resume operations under the civil service rules, brought an unusual number of personnel changes, especially during the transitional period from war service to probational appointments. During the year, several reemployed annuitants, who, with long experience and special qualifications, had during the manpower shortage of the war remained in active service, were retired.

In the department of anthropology, John C. Ewers was appointed associate curator in the division of ethnology on June 3, 1946. Dr. Marshall T. Newman resumed his duties of associate curator in the division of physical anthropology, on January 7, 1946, after his release from active military service. The vacancy caused by the transfer of Mrs. Jessie S. Shaw to the Bureau of American Ethnology was filled by the promotion of Miss Mary V. Day as clerk-stenographer in the division of ethnology on June 2, 1946.

Dr. William R. Maxon, curator, division of plants, retired on May 31, 1946, and was succeeded by Ellsworth P. Killip. On April 30, 1946, Dr. Paul Bartsch, curator, division of mollusks, retired. Other changes in the department of biology were the reappointment after a furlough to private industry, engaged in special work concerned with the war, of Dr. Richard E. Blackwelder, associate curator, division of insects, on November 13, 1945. The department lost by resignation the services of Mrs. Marie P. Fish, scientific aide in the division of fishes, and Mrs. Mildred S. Wilson, assistant curator, division of marine invertebrates, on May 15, 1946, and June 14, 1946, respectively.

The vacancy in the division of vertebrate paleontology caused by the death of Charles W. Gilmore, curator, was filled by the appointment of Dr. Charles L. Gazin on January 21, 1946, and Arlton C. Murray was advanced to scientific aide on March 11, 1946. An addition to the staff of the division of invertebrate paleontology and paleobotany was Dr. Alfred R. Loeblich, Jr., appointed associate curator on May 31, 1946.

Having been released from active military service, Frank A. Taylor, curator, division of engineering, returned to his duties in the Museum on March 4, 1946. The department of engineering and industries at the close of the fiscal year lost three employees by retirement, as follows: Dr. Frederick L. Lewton, curator, and Mrs. Elizabeth W. Rosson, assistant curator, division of crafts and industries; and Dr. Arthur J. Olmsted, associate curator, section of photography.

Four honorary appointments on the museum staff were made during the year: Dr. Paul Bartsch, associate, division of mollusks; Dr. William R. Maxon, associate in botany; Mrs. Mildred S. Wilson, collabo-

rator in copepod Crustacea; and Dr. J. Brookes Knight, research associate in paleontology.

Under the superintendent of buildings and labor, Walcutt C. Hamer was promoted to assistant mechanical superintendent (foreman of cabinet shop), the position made vacant by the transfer of Rafe A. Watkins to the Army Map Service, and James I. Simpson was assigned the duties of the assistant foreman of cabinet shop effective July 16, 1946. Following retirement on disability February 20, 1946, of William H. Chism, James C. Clarke was promoted to principal guard (lieutenant), and Edward Zuranski was assigned as principal guard (sergeant) on March 10, 1946. Other additions to the guard officer group were the promotions of Bascom F. Gordon to principal guard (lieutenant) and William H. Baird and Arnold F. Shortridge to principal guards (sergeants) on June 30, 1946.

During the year the following Museum employees returned to their positions after having completed military duty: Edward Zuranski, September 9, 1945, John L. Theunissen and George V. Worthington, October 7, 1945; Charles E. Stousland, November 5, 1945; Joseph Singleton, December 3, 1945; Dr. Charles L. Gazin, December 27, 1945; Clyde E. Bauman, January 2, 1946; Samuel T. Fetterman, January 6, 1946; Dr. Marshall T. Newman, January 7, 1946; Walter McCree, January 30, 1946; Joseph R. Burke, Jr., February 20, 1946; Frank A. Taylor, March 4, 1946; Oliver N. Armstead, March 6, 1946; Robert L. Bradshaw and John Carl Carter, April 1, 1946.

Sixteen persons were retired during the year, under the Civil Service Retirement Act, as follows: Through age, Dr. Paul Bartsch, curator, division of mollusks, on April 30, 1946, after 50 years of service; Dr. Frederick L. Lewton, curator, division of crafts of industries, on June 30, 1946, after 34 years 4 months; and Dr. Arthur J. Olmsted, associate curator, division of graphic arts, on June 30, 1946, after 26 years 1 month. By optional retirement, Dr. William R. Maxon, curator, division of plants, on May 31, 1946, after 46 years 5 months; Mrs. Elizabeth W. Rosson, assistant curator, division of crafts and industries, on June 30, 1946, after 33 years 3 months; Edgar J. Harrison, mechanic (painter), on August 31, 1945, after 13 years 5 months; Augustus G. Lindsay, guard, on March 31, 1946, after 20 years 6 months; Beverly J. Moore, guard, on June 30, 1946, after 3 years 9 months; Henry Hicks, laborer, on September 30, 1945, after 23 years 4 months; and Mrs. Mary W. Paige, charwoman, on May 31, 1946, after 12 years 3 months. Through disability retirement, William H. Chism, lieutenant of guard, on February 20, 1946, after 13 years 10 months of service; Nicola DiGennaro, guard, on July 14, 1945, after 20 years 10 months; Leo L. Lennartz, guard, on February 26, 1946, after 5 years 4 months; John W. Lockhart, guard, on October 15, 1945,

after 11 years 3 months; Bror O. Olson, guard, on May 31, 1946, after 18 years 1 month; and Mrs. Nellie Butler, laborer, on November 30, 1945, after 26 years 11 months.

Through death the Museum lost six employees from its active roll during the year: Charles W. Gilmore, curator of vertebrate paleontology, on September 27, 1945, after 41 years 10 months of service; Thomas J. Horne, preparator, on December 26, 1945, after 34 years 9 months; George Boylen, mechanic (electrician's helper), on November 28, 1945, after 3 years 9 months; Thomas C. Watts, laborer, on October 14, 1945, after 18 years 2 months; Roland S. Woodland, laborer, on October 1, 1945, after 11 years; and Mrs. Fannie H. Nedd, laborer, on January 29, 1946, after 12 years.

DETAILED REPORTS ON THE COLLECTIONS

DEPARTMENT OF ANTHROPOLOGY

(FRANK M. SETZLER, *Head Curator*)

THE outstanding event during the year in this department was the return of the anthropological specimens evacuated from Washington during the war years to the exhibition cases or the classified study collections. This operation emphasized the urgent need for additional space to house these irreplaceable specimens. Miniature scale models were prepared in the anthropological laboratory in collaboration with the division of ethnology for the department's program of modernizing this particular section of the exhibition hall. The making of accurate endocranial casts has enabled the division of physical anthropology to identify a large series of brains with the corresponding skulls. The records had been preserved with the brains when received at the close of the last century, but during the process of cleaning the skulls their identification marks became illegible. It has been determined that the ridges formed on the inside of the skull by the convolutions of an adult brain are almost as diagnostic as fingerprints.

As a result of the depleted staff during the war, as well as of restricted laboratory facilities, a considerable backlog of unclassified and uncataloged specimens has been accumulating. On the basis of approximately 65,000 specimens within the department awaiting these essential procedures, it is estimated that an additional 10 man-years will be required to accomplish this task.

During the year the head curator served on several committees dealing with the Museum work load, budgetary matters, and special exhibitions. As secretary of the Advisory Board of the National Park Service he attended the annual meeting in December 1945, and from May 6–8, 1946, participated in a conference of historians, archeologists, and museum people at Jamestown and Williamsburg, Va.

ACCESSIONS

The department received 69 accessions during the year with a total of 9,026 specimens. This increase of 36 percent (2,384 specimens) over the previous year is due to concentration on eliminating a backlog of accessions that could not be processed during previous years. The 69 accessions were assigned to the divisions and sections within the department as follows: Archeology, 20 (7,943 specimens);

ethnology, 30 (493 specimens); ceramics, 5 (69 specimens); period art and textiles, 3 (13 specimens); physical anthropology, 11 (508 specimens).

Archeology.—The prehistoric specimens received were from various parts of the world, as Trans-Jordan, Italy, Ecuador, Mexico, and the United States. They include 6,765 diverse artifacts from protohistoric Indian sites in Kansas and adjoining States, collected for the National Museum by Dr. Waldo R. Wedel, associate curator of archeology; 226 specimens from Ezion-geber, seaport to King Solomon's copper smelters, on the north shore of the Gulf of Aqabah, Trans-Jordan, collected by Dr. Nelson Glueck, director of the American Schools of Oriental Research, Jerusalem, and received as a gift from the Bruce Hughes fund; a carefully documented series of 193 potsherds from surface sites throughout Trans-Jordan, also collected by Dr. Nelson Glueck and presented by the Bruce Hughes fund; 486 diverse artifacts from the highlands of Mexico, including a selection of figurines and figurine fragments from the newly discovered archaic site of Tlatilco, a gift from Dr. W. F. Foshag; 149 stone, earthenware, and copper artifacts from the former Cherokee region of Tennessee and North Carolina, presented by Burnham S. Colburn; 17 earthenware vessels of Daunian ware, collected near Foggia, Apulia, Italy, and presented by Capt. Byron E. Farwell; a hammered copper ax with cut-out figures from the Province of Loja, Ecuador, the gift of Sr. Juan Ivan Cueva.

Ethnology.—This year's accessions in the division of ethnology included collections from North American Indian tribes of Alaska, California, Arizona, New Mexico, and the Great Plains; from Melanesian peoples of New Guinea and New Caledonia; from Indonesians of Java and Sumatra; from Negritos of the Philippine Islands; from Okinawa and the Shan States; from India, China, and Korea; and from Morocco and the Sudan.

Major documented field collections came from Melanesian villages of northeastern New Guinea. One of these, from the Aitape and the Saidor regions of the northeast coast of New Guinea, was received as a gift from Lt. C. T. R. Bohannan, who had obtained the specimens in 1943 and 1944 from natives as yet little affected by commercial contacts with the white race. The material consists of earthenware cooking utensils and storage containers, decorated wooden bowls, wooden drums with characteristic carved bird figurine embellishments, weapons of war and the chase, and other objects associated with the daily life of a primitive Melanesian people. Collections of this type are of value to the student of native cultures, since significant changes in native life in the Aitape and Saidor regions have transpired consequent to military activities. A well-documented collection of 76

ethnological specimens from the northeast coast of New Guinea was received through G. L. Barnes. Although the name of the collector remains unknown, the material is carefully labeled. It presents a cross section of coastal and inland Melanesian cultures in northeastern New Guinea. Included are weapons of warfare and the chase, costumes of bark cloth, head ornaments of woven bands decorated with animal teeth, headdresses of bird-of-paradise feathers, necklaces of boar tusks and shell, wooden disk arm bands, combs, dancing wands, netted bags and containers, utensils, and tools illustrating activities of Melanesian daily life. A collection of 67 ethnological specimens obtained in 1944 by Lt. Raymond R. Sheppard from Angel Island, which lies off Aitape on the north coast of New Guinea, came to the division as a gift of the collector. Angel Island was unoccupied at the time, owing to the activities of the Japanese, who had killed or driven off the native Melanesian population. Included in the collection are bowls and trays of carved wood, nets and bags of twisted and netted plant fiber, bark cloth, costumes, ornaments and objects of personal adornment, utensils and containers of coconut shell and bamboo, weaving apparatus, bows and drills for making fire, pigment stones, dance wands, and also bundles of spear points and blowgun darts. All originated from an area within Melanesia hitherto unrepresented in the division of ethnology. This collection may well be the last obtainable examples of unacculturated handicrafts from this sector of eastern New Guinea. A unique specimen in the form of an altar stave of carved wood was presented by Admiral William F. Halsey, U. S. N., who had received it as a gift from a New Caledonian native chief. The stave is of unpainted wood with carved conventionalized totemic designs representing mammalian forms. Carved staves of this type were erected in a semicircle where they formed an altar before which sacrificial rites, principally in the form of food offerings, were conducted.

Another important collection of 22 specimens came as a gift of Capt. Vernon L. Rodgers, who obtained the material while assigned to military service in the north section of the Southern Shan States of southern China. It consists of costume and hand-worked jewelry of the Bali people and of the Acca, a primitive mountain tribe. A Japanese Shinto sword and trappings obtained by the American army of occupation in Korea was presented by Lt. Gen. John R. Hodge, U. S. A., in the name of the Twenty-fourth Army Corps. The sword differs from the usual type of Samurai blade in that it was made for ceremonial use exclusively. The hilt of lacquered wood inlaid with silver is further decorated with lacquered bosses, cut peacock feathers, and tasseled cords. The scabbard of lacquered wood is inlaid with silver and ferruled with blue steel. The tang of the blade bears the

following inscription: "Made by Miyamoto Sugawara Kanennori, Lord of Jurayoshi, Hoki Province * * * a day in the first moon of the 22nd year of Meiji (1889)." Examples of art metalwork from Javanese, Sumatran, and other east Asiatic peoples, totaling 67 specimens, were received as a gift from Mrs. P. H. Davis who, with her husband, had acquired the objects during the period from 1900 to 1910, when they resided in Batavia, Java. In contrast with the primitive Melanesian cultures of eastern New Guinea, the metalwork and symbolism represented in the specimens included in this collection appear highly sophisticated and indicate an ancient mastery of the metal crafts. Indonesian work in brass and silver, although of Indian and Arabic derivation, is highly stylized.

The North American Continent, the source of most of the division's earlier and larger collections, is represented by two outstanding collections. The larger of these was received as the gift of the late Lt. Col. Charles E. Woodruff, through Mrs. C. M. Perkins. It was obtained in 1890 by the donor from the Hupa Indians of central California and from the Indians of the Great Plains, and consists for the most part of basketry and of skin garments and dance robes. A collection of weavings from the Navaho and Chilkat Indians was presented by Dr. and Mrs. Whitman Cross. The Navaho weavings were acquired on Indian reservations between the years 1885 and 1915 by Dr. Cross when he was engaged in geological work in the Southwest. The Chilkat blanket, which represents a form of weaving distinct from that of the Navaho, is patterned with mythological dissected animal designs in pastel shades of blue-green and yellow, and in natural white. The Chilkat weavers, who live in the vicinity of Juneau, Alaska, formerly used the hair and wool of the mountain goat and mountain sheep in their yarns.

The division of ethnology from its inception has curated a number of categories of objects, nonethnological in character but of interest to students of culture history. An interesting specimen of antiquarian interest is a Holy Bible with the Apocrypha, which was presented by F. W. Marsh. This Bible was printed from stereotype plates that were originally used for the third edition of the Isaac Collins Bible, which was issued in 1819. The section of ceramics was enriched by a gift from Mrs. Grace Hobbs Johnson of 64 specimens of American pressed glass containing examples representative of the glass houses of Sandwich, Mass.; Pittsburgh and Philadelphia, Pa.; and Wheeling, W. Va. Collectors of American pressed glass will find the type specimens included in Mrs. Johnson's gift useful for comparison and guidance in assembling and classifying their individual collections. Included are examples of the thumbprint pattern, the Sandwich loop, stippled grape and festoon, flat diamond, beaded mirror, pressed block,

bell flower, daisy, moon and star, ribbon, Rochelle, lacy, rose and snow, picket, pressed leaf, ribbed palm, beaded grape, pointed hobnail, Liberty Bell, cabbage rose, ball and swirl, hummingbird, chrysanthemum leaf, blackberry, beaded jewel, Egyptian, grapevine, beaded star, horseshoe, and other patterns characteristic of American pressed glass from the early and middle decades of the nineteenth century. Another interesting accession is a Stiegel type paneled flip glass presented by Miss Mary Ellen Dashiell. This glass, belonging originally to Charity Jenkins Boone, great-great-grandmother of the donor, is made of clear glass, and is presumably a genuine example of the work of the eighteenth-century glass house of William Henry Stiegel at Manheim, Pa. An important accession assigned to the section of period art and textiles consists of a collection of 10 pieces of Belgian needlepoint and bobbin-made laces dating from the period of World War I and presented by the Vicomtesse de Beughem. Several pieces in the collection had originally been made by Belgian lacemakers for presentation to Mrs. Brand Whitlock in token of gratitude for her aid extended to the Belgian women and girls working in canteens and other war projects.

Physical anthropology.—The 11 accessions totaling 508 specimens contained the following outstanding collections: A gift received from Dr. P. F. Titterington ranks as one of the best from the Midwestern States. Moreover, during this year Dr. Titterington made two additional donations of a total of 34 specimens collected in Calhoun County, Ill. These recently donated specimens mainly represent the prehistoric Hopewellian people as in contrast with the earlier material, which came mainly from Jersey County and represented the protohistoric Middle Mississippi people. Again this year Dr. Samuel Rabkin donated some cleared human fetuses. As stated in last year's report, these specimens have been cleared by the Schultze technique in order to demonstrate the state of skeletal development. Seven accessions involve skeletal material from six different States and the Territory of Hawaii.

INSTALLATION AND PRESERVATION OF COLLECTIONS

Owing to the wide variety of materials used in the manufacture of ethnological specimens, such as feathers, hair, tanned hides, bone, wood, and textiles, a great responsibility must be assumed by this department in providing the necessary safeguards to prevent deterioration or destruction from insects, sunlight, temperature, and humidity. One can point with pride to those well-preserved objects that have required care and inspection over the past hundred years.

Specimens without adequate scientific provenience are constantly being eliminated from our older collections by means of gifts or ex-

changes to schools and smaller museums, where the record is not important. In the modernization of the anthropological exhibits every effort is being made, in the mechanical construction, to house the collections now assigned to the present floor space in the various halls.

Throughout the year the anthropological laboratory in collaboration with the division of ethnology gave precedence to the construction of miniature models, built according to accurate scale, which will represent the long-term program of modernizing one of the ethnological halls on the first floor. This projected program will make use of the natural-size human dioramas as well as replace all the floor cases housing specimens from the various Indian tribes in North and South America. The plan of the new exhibits is primarily geographic, beginning near the west end of hall 11 with the Patagonian cultures and extending through the South American Andean and rain forests, portraying diagnostic cultural scenes in Central America, Mexico, and the southwestern United States. These features will be graphically illustrated through well-lighted cases and painted panoramic backgrounds. Interspersed will be U-shaped cases illustrating, by miniature dioramas and well-selected objects, the material culture of these various groups. In the extreme northwestern corner of this hall it is planned to erect a large semicircular display portraying, by means of specimens, charts, and photographs, the story and development of physical man. To accomplish these ultimate goals will require many years with the present limited staff assisted by the office of the superintendent.

Archeology.—Two new exhibits were installed during the year—a series of Near East seals, selected and arranged by Joseph R. Caldwell, scientific aide, and an exhibition of foodstuffs from indigenous plants cultivated by pre-Columbian inhabitants of the New World. Several other exhibits were necessarily rearranged when those unique and type specimens evacuated during the war years were made available for display. A small but important archeological collection, recovered in 1898 from caves in Chihuahua, Mexico, but not marked at time of receipt, was at last identified with its assigned catalog numbers, and the Museum records were finally completed. Mr. Caldwell and Charles Terry, Jr., scientific helper, devoted a considerable portion of the year to the unpacking and redistribution of specimens returned from evacuation. Included in this task were diverse collections removed from the attic early in the war and temporarily stacked in room 356 and in the so-called war portrait gallery in the hall of American archeology. By the end of the year all these collections had been removed to the attic once again or placed in storage elsewhere; all other evacuated materials have been unpacked and redistributed except two drawers of ancient glass. These still await table space on which to set up a new exhibit and time for preparation of new labels.

The Ezion-geber and Trans-Jordan collections, following their return from evacuation, were arranged for cataloging.

Associate Curator Wedel personally sorted, classified, and listed his 1940 collection from Rice and Cowley Counties, Kans., and from sites in Oklahoma and Nebraska, a collection totaling 6,765 cataloged specimens. In addition to processing many of the lesser accessions received during the year, the curator, Mr. Judd, had the classification and description of the late Dr. Hrdlička's 1937 collection from the Aleutian Islands nearly complete as the year ended.

Arrearage continues an ever-present and growing problem. Collections in arrears June 30, 1941, included an estimated 53,000 specimens. Despite successive reductions, annual additions have since raised that arrearage to an estimated 61,000 specimens.

Ethnology.—During April 1946 the division of ethnology joined with other divisions of the Museum in an exhibition of cultural objects from Siam installed in the ground-floor foyer of the Natural History Building. This special exhibition featured a number of pastels and water-color paintings by students of the School of Arts and Crafts, Bangkok. The objects shown by ethnology illustrated the cultural life of the Siamese people of the nineteenth century. The religious life of the Siamese was illustrated by Buddha figurines of carved and gilded wood and of bronze, and by a miniature replica of a state funeral car, while marionettes of stamped and cut leather and theatrical masks typified the Siamese drama. Also exhibited were artistic weapons from the collection formerly presented by the King of Siam to President Franklin Pierce, while numerous other minor cultural objects, executed in horn, lacquer, earthenware, basketry, and other classifications, represented the handicrafts of the Siamese.

The special exhibition installed in the ground-floor foyer of the Natural History Building of equipment lent to the department by the Air-Sea Rescue Agency of the United States Coast Guard was continued throughout the year. The exhibition of this equipment, which contributed so much to the saving of lives and the rescue of sailors and service personnel, continued to be of unusual interest to visitors.

The study collections that had been removed from attic storage to lower floors of the Natural History Building during the war were returned to their permanent locations in the upper floors. Type collections and specimens of intrinsic value that had been removed from Washington as a safeguard were returned to the division and replaced in classified storage. As has been stressed by the head curator of anthropology and the director of the National Museum, the need for space remains acute.

The requirements of the military, particularly of the Quartermaster Corps of the United States Army, during the war again directed

attention to the potential value of ethnological collections, especially those dealing with the material culture of the world's primitive peoples. The restricted publications of the JANIS (Joint Army and Navy Intelligence Service) and the Civil Affairs Handbooks of the Office of Naval Operations include much information gleaned from ethnological literature and ethnographical collections. They clearly demonstrate the experience of the past few years relative to the value of material illustrating the economic life of isolated primitive peoples.

Robert A. Elder, Jr., assistant curator, continued to devote much time to the reclassification and placement of specimens in the extensive study collections of the division. The Museum's fumatorium was used in connection with all incoming collections, and also from time to time when necessary for the treatment of individual lots of previously accessioned specimens. The use of the new insecticide dichlorodiphenyl-trichloroethane (DDT) has met with some success in large exhibit cases, the construction of which does not permit the use of volatile insecticides that have proved efficacious in the airtight quarter- and half-unit storage cases housing the study series.

Physical anthropology—No change in the public exhibitions in this division was made during the year. Further improvement of the storage sections, including the painting and numbering of drawers, came to a halt this year when new racks for storage in rooms 342 and 374 could not be obtained. Plans have been drawn for the reorganization of these two rooms that will increase the drawer capacity by 180. Progress was made in the repair of the Belle Glade (Fla.) skeletal material collected under the Civil Works Administration in 1933–34.

Almost complete success has resulted in the attempt to identify, from the corresponding brains, a collection of nearly 50 skulls assembled between 1909 and 1912 with the aid of Professor von Hansemann, of Berlin. The heads were shipped to this country as wet specimens and the brains removed here for preservation and study. In the process of cleaning the skulls the metal tags became so corroded that identification could not be made. This year endocranial casts were made in the anthropological laboratory, so that by comparing the casts with the brains the curator, Dr. T. Dale Stewart, succeeded in identifying all but one. Thus the correct information as to sex, age, and other details preserved with the brains now can be recorded with the skulls. Incidentally, the detailed markings on the brain seem to be as distinctive as fingerprints for purposes of identification. Also, as a byproduct of this investigation, the endocranial casts proved to be of unexpected interest to anthropologists.

Anthropological laboratory.—Tasks of a wide variety were completed in the anthropological laboratory during the year. For the

division of archeology two pieces of Mexican sculpture were repaired, two Indian cooking pots were restored and repaired; 18 pipes, 1 glazed terra-cotta vase, and 2 Easter Island tablets were repaired. Two sections of rope from Ezion-geber were treated with a preservative, the color was restored on two pieces of Indian sculpture; five pieces of Indian embossed copper designs were mounted between glass, and a cast of the impression from an Indian pottery stamp was made. Pen-and-ink drawings of the front and side views of 27 Indian arrowheads were made, and 5 large casts of Greek statues were painted.

For the division of ethnology 11 pieces of Indian pottery were repaired and restored, and 16 Indian baskets and a number of smaller articles were repaired and treated with a preservative. A sculpture of a Mexican deity, a bone shield, Chinese porcelain vase, glass bowl and goblet, and a Japanese bronze figure were also repaired. In addition, a Swiss carving of a man and horse, a Siamese wooden statue, and 10 Polynesian wooden objects were repaired and restored. A New Caledonia altar stave, two wooden saddles from Okinawa, and several knives and daggers were cleaned and treated with a preservative. A number of swords, scabbards, and several objects of brass and silver were polished. A figure from the Chinese imperial costume exhibit was repaired and reinstalled, the naturalistic coloring of two Indian busts by Colon was restored, 15 Indian paintings by Kate T. Cory were cleaned, a Chukchee carved tusk from Siberia was mounted on a base equipped with a reflecting mirror, and the catalog numbers were engraved with acid on 12 silver spoons.

For the division of physical anthropology eight sculptures comprising the prehistoric man series by L. Mascre were bronzed, the bust of Mazaska was modeled, and endocranial casts of 21 human skulls were completed.

As in previous years, assignments were undertaken for other branches of the Smithsonian Institution. The manikin for the Mrs. F. D. Roosevelt costume exhibit was painted, photographed, and installed; and four casts of a human torso were made and painted for the division of history. A piece-mold and 14 casts of the modillion modeled in the laboratory were made; and a 1-foot length of egg-and-dart molding, 4 piece-molds, and 259 casts were made for the division of medicine and public health. Duplicates in natural color of three specimens were completed for the division of invertebrate paleontology. The porcelain cover for a vase was repaired and restored for the National Collection of Fine Arts. The sculpture throughout the building was kept in repair.

INVESTIGATION AND RESEARCH

During the past fiscal year 67 lots of specimens were received by the department for identification. All were subsequently returned to the

owners with a detailed report. Many man-hours were spent in providing the 679 letters prepared for official replies to correspondents. This represents an increase of 17 percent over the previous year. These figures do not include direct official replies to visitors or colleagues by members of the professional staff.

Requests for anthropological information from the various war agencies decreased; nevertheless, men discharged from the armed forces submitted in person various objects and mementos for identification from various parts of the world. Several manuscripts were prepared for publication, as indicated by the divisional reports.

Archeology.—Further progress was made by Neil M. Judd on a report describing the archeological collections obtained by him at Pueblo Bonito, N. Mex. Associate Curator W. R. Wedel devoted much time during the year to preparation of his final report on field work in Kansas from 1937 to 1940. He completed two shorter articles, "The Kansa Indians" and "Culture Chronology in the Central Great Plains," and then gave principal attention toward planning and organizing archeological field work for the Missouri Valley project. This work is part of a program being developed in conjunction with the National Park Service and other Federal agencies for the mapping of archeological sites and for partial salvage of archeological remains threatened with inundation by the construction of Federal dams under the river development program of the Corps of Engineers, United States Army, and the Bureau of Reclamation, Department of the Interior. An expanding correspondence and numerous consultations with individuals and organizations were natural concomitants of this planning. At the end of the fiscal year Dr. Wedel was prepared to leave for the field to assume direct supervision of a basin-wide archeological reconnaissance.

Joseph R. Caldwell, scientific aide, undertook revision and study of the South Carolina collections as the initial phase of a research program intended to disclose both the merits and shortcomings of our material from the Southeast. At the same time cultural affiliations are being restated in terms of the currently accepted classification scheme.

Nine lots of material were lent for study outside the Museum, and 15 lots were received for examination and report and subsequently returned to the senders.

Ethnology.—Progress was made in the preparation of a final report on ethnological and archeological explorations conducted by the curator, H. W. Krieger, during the period 1928–38 in the Greater Antilles. He prepared for publication a report on the work of the Inter-American delegation, of which he was a member, that investigated the ruins of Isabela, a settlement founded by Christopher Columbus in December 1493. These ruins, commonly described as the first permanent settlement of Europeans in the New World, are located at the mouth

of the Bajabonico River on the north coast of the Dominican Republic about 40 kilometers west of the city of Puerto Plata. This settlement is actually the second to be established by Europeans south of Greenland, inasmuch as Columbus had left a group of shipwrecked sailors at Cap-Haïtien, on the north coast of Haiti, where they constructed a fort from the timbers of a vessel wrecked on Christmas Eve, 1492. Neither this earlier settlement, which Columbus named La Navidad, nor Isabela became permanent towns, although Isabela continued to exist as the Spanish capital of the New World for 7 years until it was voluntarily abandoned in favor of a settlement at the mouth of the Ozama River on the south coast of the island.

The assistant curator, Robert A. Elder, Jr., was occupied as time permitted with the study of the George Catlin collection of ethnological specimens from the northern Plains Indians and of his paintings of North American Indian subjects.

Research work of outside investigators was furthered by making available for examination specimens from the collections, the carded catalogs and indexed references, the photographic files, and the division's collection of paintings, the last mostly of Indian subjects. Supplying the demand for photographs in answer to requests by individual correspondents and visitors is time-consuming, since it involves the assembling of appropriate specimens, the transfer of specimens to the photographic laboratory and their return to classified storage or to exhibits, and finally the identification and captioning of prints.

A number of specialists employed in the colonial service of foreign countries and in the island administration of the American Government spent considerable periods of time discussing with staff members the existing relations with primitive and colonial peoples. The Post Office Department requested opinions as to the value of material damaged in the mails. The Air Judge Advocate, War Department, requested an opinion regarding ceramic and other art collections damaged and destroyed in air accidents. Assistance extended to individuals was primarily in the form of letters written for official signature in reply to requests for information by correspondents, and in supplying information to visitors regarding privately owned specimens or collections of cultural material. Information requested pertained primarily to the identification of ceramics, glass, silver, musical instruments, heating and lighting devices, and generally to American and European period art. Fifty-one written reports were made pertaining to the examination and identification of collections totaling 106 specimens, all of which were returned to the owners.

Physical anthropology.—The curator's study of the Melbourne skull from Florida, which was mentioned last year, was completed and sent to press during the third quarter. Another paper, prepared as an address for the Anthropological Society of Washington under the title

of "Anthropology and the Melting Pot," will appear in the Annual Report of the Smithsonian Institution. In collaboration with Dr. P. F. Titterington, of St. Louis, Mo., Dr. Stewart completed a report on "More Filed Indian Teeth from the United States" for publication in the Journal of the Washington Academy of Sciences. Dr. Stewart also advanced his reports on the observations made during his visit to Mexico in 1945. In one of these reports he is describing Sr. Noguera's skeletal collection obtained in 1945 at Xochicalco and in the other he is discussing the distribution and significance of a little-known deformity type occurring in Mexico. At the close of the year Dr. Stewart began work on a report covering his excavations of 1938–40 at the historic Indian village located on Potomac Creek, Va.

The associate curator, Dr. Marshall T. Newman, spent a large part of the time since his return from the Pacific theater of war upon three projects: (1) A revision of a manuscript dealing with his work in Peru during 1941–42, entitled "Indian Skeletal Material from the Central Coast of Peru; an Archeologically Oriented Study in Physical Anthropology"; (2) the final report on the skeletal remains collected in Pickwick, Wheeler, and Guntersville Basins under the Tennessee Valley Authority in 1937–40; and (3) preparing in collaboration with Lt. Comdr. R. L. Eng, U. S. N. R., a manuscript concerning the physical status of Okinawans in 1945. The material for this paper was collected by the Naval Research Center set up on the island of Okinawa at the time of the occupation. In his spare time Dr. Newman completed history cards for old accessions within the division.

Dr. C. J. Connolly, of Catholic University, continued during most of the year to use the brain collection. As a result of having worked on these collections for so many years and published so many papers, Dr. Connolly has decided to combine this material into book form. During the early part of the first quarter Dr. Gemma Barzilai continued to work at irregular intervals on her study of the pelvis. Early in October two naval officers from the Naval Medical Research Institute in Bethesda, Md., consulted Dr. Stewart regarding anthropometric methods. The Navy was confronted with the problem of limiting personnel to the size of cockpits and turrets. Dr. Stewart accompanied the officers to the Naval Air station in Anacostia and discussed with them the problems involved in the individual planes. During the year Dr. Stewart furnished Dr. Miron Burgin, of the Library of Congress, with complete bibliographies on physical anthropology in Latin America for the years 1943 and 1944. These bibliographies will appear in the Handbook of Latin American Studies, which has been taken over by the Library of Congress Members of the staff were called upon on several occasions to furnish

anthropometric information to the War Department. Identification of skeletal material was made for the Federal Bureau of Investigation on nine occasions. Dr. Samuel Rabkin visited the division and supplied information concerning the fetal specimens he had donated.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

Loans to other institutions during the year totaled 171 specimens. Anthropological specimens were presented to museums, schools, and other Government agencies. Thirty-five specimens lent to the Museum were withdrawn by the respective owners.

NUMBER OF SPECIMENS UNDER DEPARTMENT

On June 30, 1946, the department of anthropology officially listed a total of 728,318 cataloged specimens. This represents a net increase of 8,985. The following summary will indicate the distribution of specimens as assigned to the various divisions and sections within the department:

Archeology	494,809
Ethnology	183,228
Ceramics	7,654
Musical instruments	2,414
Period art and textiles	2,442
Physical anthropology	37,771
Total	728,318

DEPARTMENT OF BIOLOGY

(WALDO L. SCHMITT, *Head Curator*)

THE receipt of specimens from the Pacific region, with requests for their identification, continued heavy throughout the year following cessation of hostilities. In most of the divisions there was a marked increase in the number of specimens received, accounted for largely by accessions from individuals and various branches of the military and naval forces.

A number of field investigations were undertaken and, for the greater part, completed during the year. Dr. Leonard P. Schultz, curator of fishes, left on February 13 and Dr. J. P. E. Morrison, assistant curator of mollusks, on February 20, both to participate in a biological survey of the atom-bomb test site at Bikini Atoll, Marshall Islands. This investigation continued into the following fiscal year. From April 25 to June 30, in continuation of the Department of State's program of scientific and cultural cooperation with American Republics, Dr. E. A. Chapin, curator of insects, visited universities and experiment stations in Colombia in connection with studies initiated in 1942 on the coccinellid and scarabaeid beetles. Under the same auspices, Dr. Robert R. Miller, associate curator of fishes, was detailed from February 28 to May 27 to the U. S. Fish and Wildlife Service to assist in a survey of the fishery resources of Guatemala made in cooperation with the Guatemalan Government. The Secretary, Dr. A. Wetmore, and Watson M. Perrygo, scientific aide, made ornithological collections in Darién, Panama, in the period March 4 to April 21.

Dr. Paul Bartsch, curator of mollusks, retired on April 30, 1946, rounding out a full half century in the employ of the Museum, having been first appointed scientific aide in the division of mollusks on April 16, 1896. His professional connection with the Institution continues as honorary associate in zoology. Dr. Bartsch plans to complete a number of studies of mollusks that he has under way. Dr. Harald A. Rehder, associate curator of mollusks, was designated acting curator on May 1. Dr. William R. Maxon, curator of plants, retired on May 31, 1946, after nearly 47 years of service, and was appointed honorary associate in botany. He came to the division of plants in 1899 and was its active head since 1912. Under his leadership the National Herbarium was increased greatly, more than a million specimens of

flowering plants and ferns having been added during his tenure. He was succeeded as curator by Ellsworth P. Killip, formerly associate curator of the division.

ACCESSIONS

The year's accessions, numbering 1,187, brought to the national collections a total of 320,037 specimens. These were distributed among the several divisions and certain special sections comprising the department as follows: Mammals, 109 accessions, 4,765 specimens; birds, 72 accessions, 8,295 specimens; reptiles and amphibians, 65 accessions, 2,177 specimens; fishes, 75 accessions, 20,479 specimens; insects, 221 accessions, 207,100 specimens; marine invertebrates, 99 accessions, 5,559 specimens; mollusks, 180 accessions, 28,750 specimens (including helminths, 15 accessions, 8,080 specimens, and corals, 2 accessions, 19 specimens); echinoderms, 17 accessions, 158 specimens; plants, 346 accessions, 41,943 specimens; diatoms, 3 accessions, 630 specimens. In all, there were 52 more accessions and 122,575 more specimens received than in the previous year.

Mammals.—By transfer from the Army Medical Museum the division received 669 small mammals in 37 accessions, and from the Naval Medical School 65 in 4 accessions; for the greater part the material was collected from island bases in the Pacific, Japan, and the Philippine Islands. Also by transfer 448 mammals were received from the United States of America Typhus Commission from Japan, the Philippine Islands, China, Burma, and India, and 260 North American mammals from the United States Fish and Wildlife Service. Included in a gift of five handsome bear skins and skulls from Arthur H. Bannon were three grizzly-bear skins, few specimens of which are in the national collection. Dr. Carl L. Hubbs donated an unusually well prepared skeleton of a beaked whale from La Jolla, Calif.

Birds.—Financed by the W. L. Abbott fund of the Smithsonian Institution, M. A. Carriker, Jr., continued his ornithological work in Colombia, adding 1,357 birds and 10 sets of eggs to the Museum's collections. For the Museum the Secretary, Dr. A. Wetmore, assisted by Watson M. Perrygo, scientific aide, collected, among other material, 637 bird skins in Darién, Panama. Dr. J. P. E. Morrison collected 60 bird skins, 1 alcoholic specimen, and 2 eggs from the atom-bomb test site, Bikini Atoll. By transfer, in seven accessions, the division received from the Pacific area, chiefly the Solomons, Marianas, and Caroline Islands and northern Burma, 1,397 bird skins, 7 alcoholics, and 9 nests and set of eggs, from the Army Medical Museum, the Naval Medical School, and the United States of America Typhus Commission, and 7 bird skins from Truk Atoll, the first specimens in our collections from this island group, from the United States Fish and

Wildlife Service. Other Pacific material included gifts of 29 birds collected in the Admiralty Islands by Lt. Logan J. Bennett, U. S. N.; 7 skins of Manchurian eagles from Col. L. R. Wolfe, U. S. A.; 85 skins collected by S. Dillon Ripley and 7 collected by H. G. Deignan in Ceylon; and 27 Peruvian birds from Carl Krummel. From Ventura Barnés, Jr., there was the gift of the second known specimen of the Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), and from Hoyes Lloyd came topotypes of 26 eastern Canadian birds. An exchange of 9 paratypes of forms of Venezuelan birds new to the collections was made with W. H. Phelps.

Reptiles and amphibians.—Approximately two-thirds of the 2,177 herpetological specimens in 65 accessions were received either from the Naval Medical Research Unit No. 2 or from Service personnel. Four NAMRU accessions yielded 1,308 reptiles and amphibians from the Admiralty Islands, the Marianas, and the Solomons. From these localities, the New Hebrides, and the Philippines five individuals in the United States Naval Reserve sent in 119 reptiles and amphibians in six accessions, as follows: Lt. Comdr. K. L. Knight, 23 specimens; Lt. Adrian C. Fox, 39; Lt. Richard G. Miller, 9; Lt. Robert I. Owen, 19; and Lt. (jg) A. K. Crews (through the Naval Medical School), 38. Other accessions worthy of note include 122 reptiles and amphibians in two accessions from Chiapas and Veracruz collected by Matthew W. Stirling while leading the Smithsonian–National Geographic expeditions in Mexico; 85 reptiles and amphibians in continuation of the valuable Haitian collections made and presented to the Museum by Anthony Curtiss; and 20 frogs of great value to the associate curator in her monographic study on the frogs of Brazil collected by the donor, Dr. Paulo Sawaya, in the vicinity of São Paulo.

Fishes.—Noteworthy transfers from other Government agencies consisted of 3,825 specimens of fishes from the Marianas collected by the Naval Medical Research Unit No. 2; 1,037 fishes from Chile, taken by the United States Fish and Wildlife Service in cooperation with the Chilean Government; 2,848 fishes from Louisiana and Texas, also from the United States Fish and Wildlife Service; and a specimen of a new species of cyprinid fish from the Grand Canyon received from the National Park Service. Two exchanges enhanced the collections: 34 Venezuelan fishes collected by Dr. F. F. Bond in 1938–39, from the University of Michigan Museum of Zoology; and 33 paratypes of Philippine and Indian fishes described by Dr. A. W. Herre, from the Natural History Museum, Stanford University. New to the collections were: the unique holotype of *Cyclopsetta decussata*, a flatfish described by Gordon Gunter, the donor; the third and fourth known specimens of a wholly blind eel, *Typhlosynbranchus*, collected by the donor, Capt. M. S. Briscoe, U. S. A., at Harbel, Liberia; 54 specimens

of a Guatemalan fish, *Signalosa petenensis*, from Lake Petén; and the paratype of *Ubidia magdalenensis*, new to the collections, from the author, Cecil Miles, together with 12 other Río Magdalena, Colombia, fishes. Other material of interest included a gift of 704 fishes from southern California and Baja California from the University of California, through Dr. Carl L. Hubbs; 356 fishes from the South Pacific collected by the donor, Lt. James R. Simon, U. S. A.; 2,206 freshwater fishes from southern California, including the first specimens of the stickleback (*Gasterosteus williamsoni*) taken since the original material was secured in 1853, from Ralph G. Miller; 7 specimens of the rare humpback sucker (*Xyrauchen texanus*), from Mr. and Mrs. William P. Knoch; and a specimen of the rarely taken *Zaprora silenus* from off Oregon, from Oregon State College, through Dr. E. W. Harvey.

Insects.—The scientifically and economically most important entomological accessions for the year brought to the national collections in excess of 10,000 mosquitoes and 4,000 slides of chigger-mites from various Pacific islands and Burma as transfers from the Naval Medical Research Unit No. 2 and the United States of America Typhus Commission. The most valuable single addition to the chigger-mite collections consisted of 34 slide mounts, including paratypes of 28 species, received as an exchange from Squadron Leader Charles D. Radford, R. A. F. Outstanding among the collections of miscellaneous insects received from various members of the armed forces were some 10,000 specimens collected on Guam by Lts. G. E. Bohart and J. L. Gressitt, U. S. N. While cooperating with the Mexican Government in an economic geological survey, Dr. W. F. Foshag, the Museum's curator of mineralogy and petrology, obtained 2,500 miscellaneous insects for the national collections. The largest accession for the year was a transfer of about 140,000 specimens from the U. S. Bureau of Entomology and Plant Quarantine. The enormous collections received for identification from Army and Navy sources account for the greater part of this large transaction, which is almost twice the size of the one received from the department last year; included was an especially important collection of upward of 12,000 specimens from the division of insects affecting man and animals, Bureau of Entomology and Plant Quarantine.

Marine invertebrates.—Among the more important of the year's accessions in the division of marine invertebrates are the following that include type material: The cotype of a fresh-water shrimp from the Muséum National d'Histoire Naturelle, through Dr. Louis Fage; the type of a new species of sea anemone described by the donor, together with seven other specimens, from Dr. Sears Crowell; 5 slides, comprising 4 species, of fresh-water sponges, including a portion of

the type of *Trochospongilla leidyi*, from the University of Florida, through Miss Margaret C. Johnson; the type and paratype of a crayfish described by the donor, together with 23 other specimens, from Lt. George H. Penn, U. S. N. R.; the type and paratype of a new species of rhizocephalid, together with 17 crustaceans from Dr. E. G. Reinhard; and the neotypes of a parasitic copepod from Dr. Wilbur M. Tidd. Twenty-five accessions from 20 members or former members of the armed services contributed 1,185 crustaceans and 69 other invertebrates from the Pacific area, the Aleutian, Hawaiian, and Marshall Islands, Okinawa, and Saipan. Other accessions of interest were received from the Navy Medical Research Unit No. 2, 954 Pacific invertebrates collected in Guam, Rota, Okinawa, Pelelieu, and the Palau Islands; from the Bureau of Ships, United States Navy Department, 25 barnacles; from the Army Medical Museum, 36 crustaceans and 4 worms; from the Army Medical School, 3 crustaceans and 1 leech; and from the Eighteenth Medical General Laboratory 5 crustaceans and 2 leeches.

Mollusks.—Ten of the year's 168 accessions of mollusks included type material. Three holotypes, of which one is also a genotype, were received from Mrs. P. O. Underwood; 1 holotype from John Q. Burch; 1 holotype, together with 12 paratypes of one species, from Prof. Wesley R. Coe; 1 holotype, with 75 other specimens, from the Army Service Forces, Office of the Surgeon General; a type and paratype of the same species from Frank Lyman; 14 paratypes and topotypes of eight subspecies from Dr. C. G. Aguayo; 1 paratype from Dr. Jeanne S. Schwengel; 16 paratypes of a species and subspecies from the Museum of Comparative Zoology; 5 paratypes of one species from Stanford University; 49 specimens, including the topotypes of 14 species, from Dr. Carlos de la Torre. Transfers from the Army Medical Museum, the Army Medical School, and the Naval Medical School yielded 850 mollusks, chiefly fresh-water gastropods, from the Philippines, Okinawa, and Guam. Among the more important gifts from individuals in the armed services are to be enumerated 4,226 specimens collected in Japan and the Philippines by the donor, Capt. Ralph F. Honess, U. S. A.; 195 Philippine shells from Capt. M. S. Ferguson, U. S. A.; 884 Philippine shells from Maj. Harry J. Bennett, Sn. C., U. S. A.; and 178 specimens from Cpl. Robert Carlson, who collected them at Treasury Island in the northern Solomons. Worthy of mention also are the purchase by the Smithsonian Institution's Frances Lea Chamberlain fund of 39 lots of land shells of the Lord Calvert collection from the estate of Hugh K. Milliken; 1,840 Colombian mollusks donated by Oscar L. Haught; the gift of 855 land and fresh-water shells from Virginia by Prof. Paul R. Burch; the continued contribution of Mexican mollusks by Miss Marie E. Bourgeois,

amounting this year to 244 specimens; and two rare shells, one, *Thatcheria mirabilis*, from Japan, presented by Dr. Jeanne S. Schwengel, the other a rare Cuban land shell, *Chondrothyra percrassa*, donated by Dr. C. G. Aguayo.

Helminths.—The helminthological collections were materially enhanced by the most generous bequest of the lifetime collections of the late Dr. Henry Baldwin Ward, 8,000 lots of specimens including many types being received through Professor Ward's daughter, Charlotte B. Ward. Gifts of other type material were received as follows: 4 types and 2 paratypes of trematodes from Dr. Harold W. Manter; 12 slides of cotypes of a cestode from Dr. Bruce U. Crozier; 7 slide mounts of the type of *Hymenolepis furcouterina* from Miss Helen Edith Davis; the holotype and allotype of a new nematode from Dr. Ellsworth C. Dougherty; and 30 types and paratypes of miscellaneous helminths from Dr. J. Fred Denton.

Corals.—Nineteen specimens of corals were accessioned, 12 collected by the *Albatross*, transferred from the Fish and Wildlife Service, and 7 transferred from the Naval Medical Research Unit No. 2.

Echinoderms.—The year's accessions totaled 17, bringing about 158 specimens to the division; 10 accessions were received from the Navy Department; 3 from the Army; 1 from the Fish and Wildlife Service; and 1 each from Fred Bahovec, Mr. and Mrs. Milo W. Williams, and Dr. A. Wetmore and Watson M. Perrygo.

Plants.—The year showed a marked increase over last year in the number of plants received, 41,943 specimens in 346 accessions as compared with 30,442 in 283 accessions. This increase is largely the result of collections made by members of the armed forces while serving in the Admiralty, Aleutian, Caroline, Galápagos, Solomon, and Philippine Islands, Guam and other Marianas, Japan, Okinawa, New Guinea, Burma, and France. By transfer from the United States of America Typhus Commission the herbarium received 3,108 specimens of plants from Burma, collected in connection with a study of the correlation between plants and outbreaks of scrub typhus; and from the Foreign Economic Administration 319 plants collected in Ecuador by Drs. William C. Steere and Ira L. Wiggins in the course of quinine investigations. Three hundred specimens from the British West Indies were obtained by purchase. Among the outstanding gifts of plants to the national collections were 1,469 specimens from Colombia received in two accessions from Oscar L. Haught in return for identifications; 254 ferns from Colombia and Mexico from Dr. Elbert L. Little, Jr.; and 202 specimens from Venezuela, from Dr. Henri Pittier. Noteworthy collections were made for the Museum by H. A. Allard in the Dominican Republic and by Dr. Carl O. Erlanson in Panama; the latter accession totaled 1,800 specimens, the former about 5,000. The more important exchanges accounted for nearly 4,800

specimens, chiefly from Latin America, but in part from Sweden, the British Isles, and Canada, in 46 accessions from 16 institutions, as follows: the Royal Botanic Gardens, Kew; Royal Botanic Gardens, Edinburgh; Naturhistoriska Riksmuseet, Stockholm; Instituto Miguel Lillo and Instituto de Botánica Darwinión, Argentina; Instituto de Ciencias Naturales, Bogotá, and Comisión Botánica, Cali, Colombia; Estación Experimental Agronómica, Santiago de las Vegas, Cuba; National Museum of Canada; University of Washington; Stanford University; Allan Hancock Foundation, University of Southern California; Chicago Natural History Museum; Academy of Natural Sciences of Philadelphia; New York Botanical Garden; and Gray Herbarium, Harvard University. The principal accession received by the section of diatoms consisted of 570 slides of specimens and 20 samples of diatom earths obtained by purchase.

INSTALLATION AND PRESERVATION OF COLLECTIONS

Exhibition series.—The renovation of the exhibits of American mammals is progressing. This year rock work was completed for the case of eared seals, three specimens were cleaned and repaired, and the bottom of the case was sanded to conform with the other displays. The taxidermist force under the direction of W. L. Brown, chief taxidermist, also completed and installed a new fluorescent-lighted case containing a series of North American birds representing forms verging on extinction. Shown are the California condor, Eskimo curlew, trumpeter swan, whooping crane, and two ivory-billed woodpeckers. Eleven mounted birds were placed on exhibition in the synoptic series and the District of Columbia collection; six of these replaced specimens removed from the exhibits. Fifteen mounted big-game heads were hung in the east rotunda stair well. The polar-bear group of three was thoroughly cleaned and the "snow" base on which they stand resurfaced.

Looking toward further additions to the Museum's new habitat groups of North American mammals, miniature models were made of five pronghorn antelopes and life-sized models, molds, and casts for two of them. Miniature models of three bison for a future bison group were also completed. An adult and young pigmy hippo, two chevrotains, and a black duiker were finished for the Firestone Liberian group; and rock work was started for the improvement of the appearance of the walrus case.

Mammals.—The division of mammals now has nearly 4,000 cataloged specimens that must await additional storage cases before they can be distributed in the regular study series. Most of the cases containing large and small skulls are crowded to capacity. Nothing much can be accomplished with the collection of skeletal material until all

parts of it can be reassembled in the attic and additional cases and some additional clerical help provided. The alcoholic collection, though crowded, is generally in good order. A total of 973 jars of brains were received from the division of physical anthropology.

Birds.—The rearrangement, reidentification, and labeling of the study series of bird skins continue to progress satisfactorily. About 20 half-unit and 32 quarter-unit cases containing the following families were covered in the course of the year: Anatidae (part), Bucerotidae, Coraciidae, Leptosomatidae, Upupidae, Phoeniculidae, Momotidae, Todidae, Coliidae, Trogonidae, Alcedinidae, Meropidae, Trochilidae, Paridae, and Paradoxornithidae, and, in addition, parts of the Troglodytidae, Tyrannidae, Formicariidae, Furnariidae, and Dendrocolapidae. All material received during the year was identified at least to species for catalog purposes. The study collections of the Fish and Wildlife Service, not yet merged with the Museum series, were extensively studied and reidentified in many parts by its curator, Dr. J. W. Aldrich.

Reptiles and amphibians.—As in other divisions concerned primarily with alcoholic collections, this division is urgently in need of more shelf and stack space, or the release of space now occupied by specimens not a part of the division's direct responsibilities. Containers are needed for larger specimens than can be satisfactorily accommodated at present. The collections are crowded but otherwise are in good order and condition.

Fishes.—With the aid of temporary assistance available for the greater part of the year, routine work, such as sorting, identification, cataloging, labeling, and caring for the physical welfare of the collections, is up to date except for 17 accessions totaling 4,276 specimens received after the curator and associate curator departed for field work. The study collections are in good state of preservation, but overcrowding and lack of space for expansion prevent efficient handling. Large numbers of specimens are at present stored in the offices, laboratories, and adjacent corridor.

Insects.—All improvements in general organization and arrangement of insect material of different groups are seriously restricted by the lack of adequate space and storage facilities. To some extent this situation can be alleviated by the addition of more cases and drawers, but in some sections additional floor space needs to be provided.

During the latter part of the fiscal year, seven of the Department of Agriculture specialists who served in the armed forces during the war were released and restored to their former positions in the division of insect identification. During their absence research on and organization of the collections were to a large degree suspended in the groups

with which these men were concerned. Because of personnel shortage in the division, large quantities of insect material that has accumulated in recent years remain unmounted and therefore not usable for reference or research.

As time permitted, the curator, Dr. E. A. Chapin, made the coccinellid material more available, arranging the entire collection of the genus *Hippodamia* in accordance with his recent revision of the genus. W. E. Hoffmann, assistant curator, continued the regrouping, remounting, and repair of the study material of the Oriental Pentatomoidea. Dr. R. E. Blackwelder, assistant curator, completed a preliminary rearrangement of half the subfamilies of the Staphylinidae preparatory to undertaking a major revision of the family.

Dr. A. B. Gurney, in charge of the Orthoptera and Neuroptera groups, returned from Army service late in the year. In his absence, the material handled in the course of routine identifications was incorporated. The Embioptera returned identified by Dr. E. S. Ross, of the California Academy of Sciences, made the National Museum collection of this group an excellent one with reference to New World forms. Some of the neuropteroid groups, particularly the Corrodentia and Odonata, are badly in need of thorough study, identification, and arrangement. These large collections are of little value to science at present.

The large and valuable collection of identified larvae of Coleoptera received from J. P. Kryger, of Denmark, was partly incorporated, and all larvae of the Carabaeidae reworked and rearranged. All the larvae of the genus *Dermestes* were restudied and relabeled where necessary. The type collection of Scolytidae was worked over, each holotype being placed in a separate labeled tray, and the entire collection arranged in alphabetic order for easy reference. In connection with his revision of the North American species of the large weevil genus *Conotrachelus*, L. L. Buchanan restudied all the material in the collection and relabeled and rearranged it. This W. S. Fisher did also for the collection of Bostrichidae in preparation for a revision of that family.

Dr. Harrison M. Tietz, of Pennsylvania State College, spent nearly 3 months early in the fiscal year in the Lepidoptera section completing the incorporation of the American Phalaenidae into one unit. As a result of two summers spent on the North American Phalaenidae, Dr. Tietz now has them completely organized. This makes possible much more efficient handling of both the identification and research work. The tropical Phalaenidae still require similar attention, but more cases and drawers will have to be furnished before this can be given. Since his return from Army service, W. D. Field made substantial progress in the rearrangement of the North American Notodontidae and the incorporation of new material in that family.

Thus far, work on 29 genera has been completed, but much remains to be done, since many series are badly mixed and all material needs to be reidentified. This will require considerable research and the preparation of numerous genitalic mounts. The whole collection of Lepidoptera is in good condition, but in virtually every family research work is needed for correct labeling and appropriate arrangement. The collection of lepidopterous larvae had larger additions than in any recent year, but much of the material acquired has yet to be placed in standard jars and properly labeled.

Some changes were made in the assignments of certain specialists in the section of Hemiptera during the year, necessitating a shift of portions of the collections of Homoptera. Louise M. Russell took over the Cicadidae, Membracidae, Cercopidae, and certain other groups of Homoptera formerly assigned to Dr. P. W. Oman. Approximately 20,000 specimens of Homoptera, mostly leafhoppers from the Davis, Ball, and Oman collections, were sorted and incorporated during the year, and nearly 8,000 specimens of Heteroptera, including 2,600 from the Ball, Andre, McAtee, and Stoner collections, were incorporated. Considerable progress was made in the mounting of the large quantity of determined Heteroptera and Cicadellidae that accumulated during the past several years. A capable preparator was assigned to this task. The organization of the segregated types of Heteroptera was also completed during the year, each holotype being placed in an individual tray and the collection arranged for ready reference. The general condition of the Hemiptera collections is reasonably good, and notable improvement was made in the families Corixidae, Miridae, Pentatomidae, and Tingidae. Various large groups, especially the Membracidae and Fulgoridae, are in an almost unworked condition, and much needs yet to be done in other parts of the Hemiptera.

The mosquito collection under Dr. Alan Stone grew rapidly, partly because of the fact that some of the personnel of the Naval Medical Research Unit No. 2 were actively engaged in working up large collections of mosquitoes from the Philippines, New Guinea, the Solomons, Okinawa, and Truk. Extensive collections of mosquitoes were also received from Army sources. The wartime additions have made the collection of mosquitoes probably the best in existence. It now contains representatives of 1,221 species with, in many cases, larvae and pupae associated with the adults. Further progress was made with incorporation of the Shannon collection of Diptera. The collection of Diptera is in good physical condition, but most of the families, and especially the muscoid groups, need extensive research before they can be properly organized.

The collection of Hymenoptera was shifted to facilitate consultation by the individual specialists. All aculeate Hymenoptera were placed in one room, the ants in another. As a result of the 5 months' tem-

porary appointment of V. S. L. Pate, of Cornell University, the Nearctic collections of three tribes of Sphecidae, involving more than 20 drawers of specimens, were completely reidentified and rearranged. Further improvements in the collection of aculeate Hymenoptera resulted from the incorporation of many schmitt boxes of Sphecidae and Pompilidae identified by outside workers. Lt. Comdr. R. M. Bohart worked over portions of the wasp collections, particularly the genera *Polistes*, *Eumenes*, *Rygchium*, and *Stenodynerus*. In the Ichneumonidae 23 drawers of material were restudied and rearranged. A large collection of Old World Braconidae belonging to the subfamily Spathiinae, returned by G. E. J. Nixon, of the British Museum, was incorporated. This collection formed the principal basis of Nixon's revision of the Old World Spathiinae recently published in London. The returned material included 120 holotypes.

The determined material of Thysanoptera is mostly arranged and readily available for reference and study, but much still remains to be incorporated for want of the necessary slide storage facilities. J. C. Crawford personally purchased a good deal of Thysanoptera material from collectors in South America and Cyprus and placed in the national collections a good representation of each species thus obtained.

Grace E. Glance continued the reworking and incorporation of the long-neglected Collembola, Thysanura, and Entotrophi material, incorporating also large quantities of new material, particularly Collembola acquired during the year. Although progress is extremely slow because of the extended study required in every family of these primitive insects, appreciable improvement has been made. For certain groups of the Entotrophi it has been necessary to prepare slide mounts of material formerly preserved in liquid. A notable improvement in the collection of Iapygidae resulted from the study of several large lots of material submitted by Duke University.

Following Dr. H. E. Ewing's retirement on September 30, 1945, Dr. E. W. Stafford, of Mississippi State College, was appointed by the Bureau of Entomology and Plant Quarantine for a period of 3 months to rework the collection of Mallophaga. He reidentified and rearranged nearly all the regular collection, bringing the nomenclature up to date. Dr. E. W. Baker, who took over the mites, sorted the Museum's large collection of Parasitoidea into the proper families in preparation for critical studies of subordinate groups, but little in this vast collection has yet been named specifically. Notable improvement was made in the trombiculid collections by Lt. G. W. Wharton, Jr., who worked in the division several months and identified a large collection from the South Pacific. The alcoholic mites and ticks, which had received little attention for several years, were entirely reorganized, and all the material placed in vials in standard jars.

H. H. Swift was employed by the Department of Agriculture for 6 months to reidentify and rearrange the spider collection. In this time he segregated all the material of the principal zoogeographic regions and sorted to genus most of the Nearctic material, reidentifying about one-fifth of the Nearctic collection. Mr. Swift also sorted about two-thirds of the Neotropical spiders to family and segregated a large part of the type material, an exceedingly difficult task since most of the types in Marx's collection had not been clearly marked. With his report on the collection Mr. Swift supplied a list of the holotypes and cotypes contained in the Museum's spider collection. It is a satisfaction to know that this spider collection, containing 30,000 specimens, is in far better order than it has been for several decades.

Marine invertebrates.—The assignment of a temporary cataloger to the division made it possible to catalog several years' accumulation of identified specimens of Crustacea, Pycnogonida, Sipunculoidea, Echiuroidea, Hirudinea, Ascidiacea, Hydrozoa, and Hydrocorallinae. The cataloging added over 100 new species and 20 new genera to the Museum's invertebrate study series. In the course of distributing this material, the entire copepod collection, among the most comprehensive in the world of both free-living and parasitic forms, was completely overhauled and rearranged by the assistant curator, Mrs. Mildred S. Wilson. Dr. R. S. Bassler, head curator of geology, as caretaker of the Recent Bryozoa, reported the identification of several thousand specimens of duplicate material for exchange purposes and the sorting into species of considerable Mediterranean material, especially from the rich fauna at Oran. Extensive collections from Flinders, Victoria, have been reduced, and several hundred species have been separated and photographed preparatory to study. Clarence R. Shoemaker, associate in zoology, with his review of the little-known pelagic Amphipoda of the Bermuda Oceanographic Expeditions of the New York Zoological Society, added much interesting material to the collection and brought the arrangement of that portion of the amphipod study series in line with the latest researches. Other smaller sections of the crustacean collections were overhauled and rearranged concomitant with the cataloging and intercalation of new material. The collection of Pycnogonida, growing rapidly as the result of the continued efforts of Joel W. Hedgpeth, of the Texas Game, Fish, and Oyster Commission at Rockport, Tex., was also examined, the cataloging brought up to date, and the entire collection rearranged. At the close of the year the long-planned rearrangement of the Ascidiaceae of the lower chordate collections was initiated because of the large amount of material identified by Dr. Willard G. Van Name, of the American Museum

of Natural History, while preparing the manuscript of his monographic report on "The North and South American Ascidians." Attention will next be directed toward the hydroid collections, which were materially enhanced by the identification by Dr. C. McLean Fraser, professor emeritus of the University of British Columbia, of many hundreds of specimens secured in the early days of the old United States Fish Commission, but not identified until the last few years, when Dr. Fraser was gathering distributional data for use in his recently published "Hydroids of the Atlantic Coast of North America."

An index to the genera of Arthropoda in the collection, a long-wanted tool for the more efficient handling of research work and inquiries for information, and the organization of the study series were gotten well under way during the year. The comprehensive index of copepod literature and species bequeathed to the Museum by the late Charles Branch Wilson was also brought up to date by Mrs. Mildred S. Wilson, assistant curator, who plans to continue her work on copepods and this invaluable reference file.

The sectional library was given its first virtually complete overhaul in many years. This included a check and improvement of the card catalog of the library.

Mollusks.—In caring for the molluscan collections, principal attention was given to the redistribution of the returned type material to the study series, the holotypes being segregated in a special case as the work progressed. Chief arrearages are in the distribution of cataloged specimens determined during the year and in cataloging the existing large backlog of previously identified material. Commendable progress has been made, however, by the temporary cataloger assigned to the division for the greater part of the year.

Helminths and corals.—As in former years, the helminthological collections were cared for by the staff of the zoological division of the United States Bureau of Animal Industry, which makes most extensive use of the study material. An extensive rearrangement of the corals will be needed when the portions of the collection stored on the second floor during the war years are returned to the attic.

Plants.—A total of 16,600 specimens of flowering plants and ferns were mounted during the year, 12,600 by contract and 4,000 by Mrs. Tillie E. Berger, scientific aide. In addition, 5,907 photographs of type specimens were pasted on herbarium sheets, 5,000 of these by contract. Mrs. Berger's successful efforts to improve the mounting situation resulted in an increase of more than 4,500 in the number of specimens and photographs mounted in 1945–46 over the preceding year. Nearly 2,500 typed or printed descriptions were also pasted on sheets, and 7,012 mounted specimens repaired. The number of speci-

mens stamped, recorded, and made ready for the herbarium by J. B. Walker, scientific aide, numbered 15,102. About 50,000 specimens and photographs still await mounting. About 80,000 mounted, stamped, and recorded specimens and sheets bearing photographs, mostly from continental North and South America, still await incorporation in the herbarium. The filing of Old World and West Indian mounted specimens, under the care of Dr. Egbert H. Walker and Emery C. Leonard, is well up to date. Dr. W. R. Maxon and C. V. Morton distributed into the collections several thousand ferns, leaving very little unincorporated material in this group. Routine distribution into the herbarium of the accumulation of flowering plants from continental North America was continued by Mr. Morton as opportunity offered. Ellsworth P. Killip and Joseph A. Ewan incorporated several thousand South American specimens, mainly in connection with identification work upon large collections which accumulated during the war. In the grass herbarium only a comparatively small number of specimens remain undistributed, Mrs. Agnes Chase and Dr. Ruth Chou having kept the work well up to date. During the year 627 specimens were added to the type herbarium, bringing the total number thus segregated up to 45,020. As in other years, Mr. Leonard, who has had immediate charge of the lower cryptogams, devoted about one day a week to them, distributing 2,670 packets, of which more than half consisted of algae, into the collections. There are still about 50,000 specimens, in varying stages of processing, to be distributed into the cryptogamic herbarium. Most of them are lichens, a group to which little attention has been given at the National Herbarium for many years. John A. Stevenson, honorary curator of the Lloyd mycological collections, reports that the collections were frequently consulted during the year by mycologists interested in the taxonomy of Polyporaceae, Thelephoraceae, and Gasteromycetes, fungi of economic importance in forestry.

Taxidermist shop.—Aside from work on the exhibition series in the public halls of the Museum, the taxidermists were called upon for a great deal of work in connection with the preparation and preservation of specimens forming a part of the study collections of the Institution. Time was also devoted to the planning and execution of models for future exhibits and the renovation of existing ones. Considerable attention was given to making molds and celluloid reproductions of snakes. Of the former 12 were completed, of the latter 4; 12 old plaster casts of snakes were repaired. Skins made up, remade, repaired, degreased, or dismounted, including animals skinned, included 115 mammals and 45 birds. Skeletons, as well as individual skulls and sets of leg bones other than those accompanying complete skeletons, attended to during the year included 1,806 mammals and 92

birds; 5 eggs were blown. During the year, 195 requisitions submitted by the curators were completed. Mrs. Roxie Simpson, taxidermist attached to the division of birds, degreased and remade 256 old skins, made up 19 fresh ones, roughed out 32 bird skeletons, and mounted a whistling swan.

INVESTIGATION AND RESEARCH

Mammals.—A history of the ten divisions constituting the department, entitled "A Century of Progress in Smithsonian Biology," was prepared by the curator, Dr. Remington Kellogg, for inclusion in the Smithsonian Centennial issue of *Science*. He also published descriptions of two new Philippine rodents and three new mammals from the Pearl Islands of Panama. The associate curator, Raymond H. Gilmore, reported upon the remaining collections of bones from cave sites and Indian burial mounds that have been on hand in the division for some years, published one article on "Arctic Mammalogy," and prepared several other manuscripts. Gerrit S. Miller, Jr., was engaged during the year with the revision of his "Checklist of North American Recent Mammals."

Birds.—During the year the curator, Dr. Herbert Friedmann, worked on the manuscript of the twelfth volume of Ridgway's unfinished monograph, "The Birds of North and Middle America." He also gave some attention to the fifth edition of the Checklist of North American Birds, to be published by the American Ornithologists' Union, and to a checklist of birds of Mexico being prepared by R. T. Moore, L. Griscom, and himself. He also published three papers on South American birds, as well as several book reviews. The associate curator, H. G. Deignan, saw publication of his report on the "Birds of Northern Thailand" and continued work on a checklist of the birds of Thailand and a critical catalog of the bird types in the Museum collection. Five of his papers on southeast Asiatic birds were also published in the course of the year. S. Dillon Ripley, formerly assistant curator, completed a report on the birds collected by Mr. Deignan and himself in Ceylon and published six papers and reviews, mostly on Oriental birds. Dr. A. Wetmore devoted part of his research time to the preparation of the next supplement to the A. O. U. Checklist of North American Birds and worked on his collections from Panama, Mexico, and Colombia. He published a review of the races of the brown pelican and also some notes on fossil bird bones.

Reptiles and amphibians.—Dr. Doris M. Cochran, associate curator, published a report on the reptiles and amphibians of the Pearl Islands, Panama, and also prepared copy for keys of the included species for mimeographing for use by the army personnel stationed in the islands.

Considerable progress was made with her monographic account of the frogs of Brazil for which about half the necessary illustrations are now complete.

Fishes.—The curator of fishes, Dr. Leonard P. Schultz, completed his final report on the Venezuelan fishes collected by him in 1942, as well as those secured by the U. S. S. *Niagara* in 1924–25. He also completed a revision of the genera of mullets, in which he described three new genera, as well as a revision of the genera of atherine fishes, in which two new species and five new genera are described. Three papers previously completed were published during the year. The associate curator, Dr. Robert R. Miller, published nine papers during the year and completed three papers dealing with the following research: the need for ichthyological surveys of the major rivers of western North America; correlation between fish distribution and hydrographic history in the desert basins of western United States, jointly with Dr. Carl L. Hubbs; and the cyprinodont fishes of the Death Valley system of eastern California and southwestern Nevada. He has the description of a new species of cave *Mollienisia* from Mexico and a discussion of *Chasmistes liorus*, a catostomid fish from Utah Lake, in progress. Dr. S. F. Hildebrand, of the Fish and Wildlife Service, working in the division, completed and saw publication of his "A Descriptive Catalog of the Shore Fishes of Peru" (U. S. National Museum Bulletin 189), and is now working on a similar handbook on the fishes of Chile, as well as a supplement to his earlier "Marine Fishes of Panama." Dr. Isaac Ginsberg, of the same service, continued work on his monograph of American gobiid fishes.

Insects.—During the year the curator, Dr. E. A. Chapin, completed and published his study of the genus *Hippodamia*. His studies of the coleopterous family Coccinellidae preparatory to a revision of this family were continued and other investigations undertaken for the purpose of facilitating identifications in both the Coccinellidae and the Scarabaeidae. The assistant curator, Dr. R. E. Blackwelder, continued work on the checklist of Latin American Coleoptera. Part 4 of this was published, and part 5 of the text has been typed. He also completed several small studies on bibliography and nomenclature. Research work on the subfamily Pentatomoidea of the Oriental region was continued by the assistant curator, W. E. Hoffmann. Because of the scattered and inadequate literature, much of which is in languages other than English, much time and energy had to be spent upon a study of the literature. Dissections and study of the genitalia were made to permit the accurate determination of genera.

The Coleoptera section was not so adversely affected by the diversion of manpower to the war as some of the other units of the division.

W. S. Fisher completed his first draft of a large revisionary work on the North American Bostrichidae. He also carried on intermittently studies on the Anobiidae begun 3 years ago. L. L. Buchanan completed one paper treating of six North American species of the hickory weevils belonging to the genus *Conotrachelus*. The resignation of Dr. J. M. Valentine brought to a halt research studies on the family Elateridae. He expects, however, to complete a revision of several genera belonging to one tribe of this family, for which illustrations have been prepared. Dr. W. H. Anderson continued his researches on the larvae of the Rhyncophora and completed the descriptions and most of the illustrations pertaining to 12 of the subfamilies studied. Before his enlistment in the Army, Dr. B. E. Rees had begun a study of the larvae of the North American species of *Dermestes*, a group of much economic importance. Since his return he completed this paper, made a beginning on a study of the larvae of the Chrysomelidae, and reorganized his prewar work on the larvae of the Coccinellidae.

The Lepidoptera section was particularly hard hit during the war, with the result that virtually no research was possible. However, H. W. Capps worked on a classification of the Lepidoptera based on larval characters. He also completed and submitted for publication a key to the larvae of the species of *Keiferia* and *Gnorimoschema* feeding on tomatoes, eggplant, pepper, and potatoes. Further, he studied the adults of the genus *Leucinodes* in connection with an investigation he carried on in Mexico during the winter. While still on military duty in Europe, J. F. G. Clarke was granted authority to spend a few weeks studying Lepidoptera at Paris and in the British Museum. At Paris he segregated the Ragonot types of Phycitidae and received permission to remove the abdomens for the making of genitalic slide mounts by Carl Heinrich. Slide mounts of 33 types have been made. At London Mr. Clarke studied the types of some Microlepidoptera and obtained information on the types of certain species of Phycitidae for Mr. Heinrich. The year saw the publication of "The North American Clear-wing Moths of the Family Aegeriidae," by the late George P. Engelhardt, issued as U. S. National Museum Bulletin 190.

A study of the tribal divisions of the Aleyrodidae of the Hemiptera was completed by Louise M. Russell, except for certain illustrations. Miss Russell also revised and brought up to date a large manuscript prepared in 1942 on the genus *Trialeurodes*, and completed a study of a new psyllid in the Belgian Congo. Dr. P. W. Mason continued his studies on the aphids of the genus *Macrosiphum* and devoted some time to studies of the genus *Kakimia*. Dr. P. W. Oman returned from military service in February and has since then reviewed his manu-

718402—46——4

script on Nearctic Cicadellidae. In the Heteroptera taxonomic research was limited, owing to Dr. R. I. Sailer's participation in DDT studies, including the preparation of a report on the effect of DDT spraying on the fauna of the forest floor.

In the Diptera section Dr. Alan Stone, jointly with Lt. D. S. Farner, U. S. N. R., published a paper on a group of mosquitoes belonging to the genus *Aedes*. He also prepared a section on taxonomic technique for a manual of malariology edited by Mark F. Boyd.

In the aculeate Hymenoptera V. S. L. Pate completed a study of the genus *Crossocerus*, subgenus *Eupiloides*. Along with Dr. R. I. Sailer, of the Hemiptera section, Dr. H. K. Townes devoted a considerable part of the year to studies associated with the DDT experiments in Pennsylvania and Maryland, completing and submitting for publication a report on the effect of large-scale treatments of forest areas upon aquatic insects and, in collaboration with others, upon terrestrial insects also. Dr. M. R. Smith completed for publication several papers dealing with ants of the genera *Polyergus*, *Cryptocerus*, *Stegomyrmex*, and *Apsychomyrmex*, as well as a comprehensive generic and subgeneric synopsis with numerous illustrations of the Nearctic ants based on the worker caste.

In the Thysanoptera J. C. Crawford reports progress on a revision of the species of *Thrips* of the eastern United States and also the completion of a professional key to the Nearctic species of the genus *Sericothrips*.

Since no attention had been given to the Collembola, Thysanura, and Entotrophi until the past 2 or 3 years, nearly all Miss Grace Glance's time was confined to the development of a satisfactory reference collection. She did, however, make a beginning on a revision of the collembolan genus *Xenylla*.

In the section of ectoparasites and Acarina, for want of help only the Acarina received attention. Here Dr. E. W. Baker continued his study of the genus *Brevipalpus*. It was found that in many cases specific distinctions are sharper in the early instars than in the adults. Dr. Baker also completed his first draft of a revision of the mite family Cheyletidae, a study of a group of North and Central American mites of the family Penthaleidae, and a short paper describing a new species of *Cheloribates* from India. This new species has been suspected as an alternate host of the sheep tapeworm. In collaboration with Lt. G. W. Wharton, Jr., of Duke University, Dr. Baker undertook a classification of the families of mites, which will include keys to all known families and genera and establish genotypes, with illustrations of mites representing all the families, a discussion of the economic significance of the major groups, and such biological data as may be available.

Marine invertebrates.—The assistant curator, Mrs. Mildred S. Wilson, continued revisionary studies of certain genera of marine copepods, completing and submitting for publication an account of the species of the genus *Platycopia*, for which she described a new species. She also made some progress with the genus *Pseudocyclops*, for which she discovered several species new to American waters. Clarence R. Shoemaker, associate in zoology, published the results of an intensive study of the little known and heretofore sparsely collected pelagic amphipods in his account of "The Amphipoda of the Bermuda Oceanographic Expeditions," and returned with renewed interest to the preparation of further revisions of the genera of amphipods of the western Atlantic. Dr. R. S. Bassler has segregated and photographed several hundred species of Australian Bryozoa preparatory to a report upon that material. Dr. J. A. Cushman's further researches on recent and fossil Foraminifera have materially enhanced the collections he maintains at Sharon, Mass., and the national collections at Washington as well. Several of his papers were published during the year.

Mollusks.—The curator of mollusks, Dr. Paul Bartsch, continued work on the east Pacific turrid mollusks, as well as that on the Cuban members of the family Urocoptiidae in collaboration with Dr. Carlos de la Torre. He also completed several smaller papers. The associate curator, Dr. Harald A. Rehder, also completed several papers describing new species which he discovered in the course of identifying incoming collections. Dr. J. P. E. Morrison, assistant curator, completed a report on the mollusks gathered by the Secretary and himself in the Pearl Islands before his departure in February to take part in the biological survey of Bikini Atoll in connection with Operations Crossroads.

Plants.—The botanical studies accomplished during the year were in general a result of current identification work. Dr. W. R. Maxon, curator, and C. V. Morton, assistant curator, completed several articles on ferns; one by Mr. Morton on the fern genus *Hymenophyllum* is being published in the Contributions from the United States National Herbarium. Ellsworth P. Killip, associate curator, made progress toward the completion of his papers on the Papilionaceae of Colombia and on the Andean species of *Cordia* and *Tournefortia*. Emery C. Leonard, assistant curator, continued work on his revisions of the Acanthaceae of Colombia and Argentina. He also made further progress on the illustrated flora of Hispaniola, upon which he has been working for several years. Dr. E. H. Walker, assistant curator, has a new edition of his "Checklist of Plants in the Washington-Baltimore Area" in course of publication. He also prepared a subject index to E. D. Merrill's "A Botanical Bibliography of the Islands of

the Pacific," both the bibliography and the index to appear in an early number of Contributions from the United States National Herbarium. Joseph A. Ewan, assistant curator, about completed synopses of the South American species of *Vismia* and *Macrocarpaea* and of the Colombian species of *Spigelia*, as well as a bibliography dealing with José Celestino Mutis and Colombian botany, a project he has undertaken at the request of Jardín Botánico, Madrid. The employment of Dr. Ruth Chou as aide, made possible by the Department of State under its program of Cooperation with American Republics, enabled Mrs. Agnes Chase to resume her monographic study of the grasses of Brazil. These investigations were temporarily laid aside for the last few months of the year, in order to complete a revised edition of Hitchcock's "Manual of the Grasses of the United States." This work was done at the urgent request of the Department of Agriculture.

Diatoms.—The associate curator, Paul S. Conger, continued his study and identification of diatoms of the Presidential Cruise of 1938. Further work was also done toward improving the method for making micrometric scales for direct measurement of minute objects.

IDENTIFICATION, DISTRIBUTION, AND EXCHANGE OF SPECIMENS

The number of lots of specimens sent in with requests for identification was as follows: Mammals, 88; birds, 48; reptiles, 37; fishes, 36; insects, 107; marine invertebrates, 66; mollusks, 140; helminths, 6; corals, 1; echinoderms, 7; plants, 307; a total of 843. Not included are 21,207 lots of specimens received by the division of insect identification, U. S. Department of Agriculture. The total number of lots received for identification represents about a 7 percent increase over last year. The total number of specimens from all sources identified during the year approximated 63,000, not including 49,268 identified by members of the staff of the division of insect identification.

Duplicate zoological specimens distributed to museums, colleges, high schools, and similar institutions, government agencies, and private individuals, aggregated 51 transactions; 1,478 specimens were sent out in exchange, 1,350 as gifts, and 1,003 as transfers. The 18,347 plants distributed in 115 exchanges, aside from a special distribution of 2,900 lower cryptograms, went to 61 institutions and correspondents. Fourteen photographs of fishes used as namesakes of submarines were transferred to the Navy craft concerned during the year.

NUMBER OF SPECIMENS UNDER THE DEPARTMENT

The summary of specimens given below is based on the numbers estimated for the previous fiscal year, with the addition of the specimens accessioned during the present year and the deduction of specimens removed during the same period. The figures of the early estimates were approximate and have been revised from time to time.

No estimate has yet been made for the corals, nor does the number of plants include the lower cryptogams and duplicates. In several of the divisions lots consisting of minute organisms are frequently counted as single specimens though they may contain hundreds and even thousands of individuals, the enumeration of which could serve no useful purpose. Last year, through an oversight, 10 specimens failed of inclusion in the total of specimens under the division of mammals. They have been included in the current year's count. In the closing month of the fiscal year a recheck of the collection of plants showed that the earlier estimate was too low by about 338,000 specimens. The corrected total is given below. Processed specimens, such as plants mounted or diatoms mounted on slides during the year from duplicate and other material on hand, account for any other unspecified increase in the annual totals of these groups.

Mammals		252,596
Birds:		
Skins	298,381	
Alcoholics	18,295	
Skeletons	10,104	
Eggs	92,100	
		418,880
Reptiles and amphibians		132,430
Fishes		1,325,047
Insects		5,844,757
Marine invertebrates		1,062,454
Mollusks		3,143,134
Helminths		43,173
Echinoderms		177,745
Plants		2,215,000
Diatoms:		
Slides	20,870	
Crude and prepared samples	25,091	
		45,961
Total		14,661,177

DEPARTMENT OF GEOLOGY

(R. S. Bassler, *Head Curator*)

With the war's cessation the activities of the department of geology quickly trended toward normalcy, with increasing demands on the services rendered to the public and to scientific and educational institutions.

The illness and subsequent death of our esteemed curator of vertebrate paleontology, Charles W. Gilmore, and the passing soon afterward of his veteran preparator, Thomas J. Horne, during the first half of the fiscal year, were grievous losses to the staff. Genial Charles Gilmore, with his rare combination of abilities for both exhibition and research work, will long be remembered not only for his contributions to knowledge but also because of the Museum's hall of dinosaurs, for which he was responsible. Visitors to this hall will learn from the exhibition labels of the important part Mr. Horne had in the preparation and installation of many of the striking mounted specimens.

Curator William F. Foshag returned on October 8 to his Museum duties from his supervisory mineral surveys in Mexico, after 3½ years absence in war work. Associate Curator C. L. Gazin terminated his military service the latter part of December and was appointed curator of vertebrate paleontology in January 1946. In May, Franklin L. Pearce, recently discharged from the Army, was appointed preparator in this division. The appointment of Dr. Alfred R. Loeblich, Jr., to the vacant position of associate curator of invertebrate paleontology and paleobotany in May 1946 brought the geological staff back to its prewar strength. The staff was further strengthened by the selection of Dr. J. Brookes Knight as research associate in invertebrate paleontology, for studies of the difficult and much neglected Paleozoic Gastropoda. Finally, the return of Dr. Wendell P. Woodring, specialist of the Geological Survey in Cenozoic geology and paleontology, to his studies on the Museum collection, brought resumption of active work in this division.

Field work was pursued in all three divisions with varied and interesting purposes. First, mention should be made of the request of General MacArthur that Curators Foshag and Henderson be detailed to classify and evaluate large collections of gemstones brought together in Japan. Both are still occupied in Tokyo with this assignment, which started on May 25. Curator C. L. Gazin, with his preparator Franklin

Pearce, left May 23 on an expedition to renew exploration of the early Tertiary formations of central Utah and to carry on further collecting of fossil mammals from the Middle Eocene rocks of the Bridger Basin of Wyoming. Their explorations were still in progress at the close of the fiscal year. An expedition by Drs. Cooper and Knight to the Glass Mountains of Texas for the collection of Permian fossils, a 6 weeks' field study of Ordovician stratigraphy and fossils in the southern Appalachians by Drs. G. A. and B. N. Cooper, and a short trip to the Central Mineral Region of Texas by Curator Cooper, were highlights of the year in the division of invertebrate paleontology and paleobotany.

ACCESSIONS

The total number of accessions registered in the department amounted to 140, consisting of approximately 45,163 specimens, as compared with 130 accessions and 23,770 specimens reported for the previous year. The division of mineralogy and petrology received 56 accessions (1,373 specimens); invertebrate paleontology and paleobotany, 77 accessions (43,767 specimens); and vertebrate paleontology, 7 accessions (23 specimens).

Mineralogy and petrology.—The mineral collection continued its growth, partly through the several funds of the division, but largely through gifts. Three new minerals not hitherto represented were donated; cattierite and valsite from Prof. Paul F. Kerr, who described these species, and salesite from Robert C. Linck; while the new species sampleite was obtained by exchange from Harvard University. Other desirable minerals received as gifts were brucite from Gabbs, Nev., from Charles J. Vitaliano; gibbsite from Paramaribo, Surinam, from H. Schols; uranophane, a uranium compound from the Amphlett Mica mine, from A. W. Amphlett; a large pure mass of livingstonite and one of scheelite from Mexico, from C. W. Vaupell; a specimen of the rare zinc mineral rosasite from Arizona, from Arthur L. Flagg; and the manganese silicate knebelite from Stark, N. H., from Harold J. Verrow. Dean F. Frasche continued his interest in our growth with the gift of a series of rare minerals, including uranium compounds, from the Belgian Congo.

The mineral collection of Dr. Whitman Cross, containing specimens from many old classical localities in Europe and the western United States, presented by Dr. and Mrs. Cross, added historically interesting specimens.

By transfer from the United States Geological Survey came nontronite, the hydrated silicate, and boehmite, the alumina in clay, from Washington, and serpentine, variety picrolite, from North Carolina.

Among the numerous geological specimens secured by Curator Foshag during his work in Mexico were fine sal-ammoniac crystals

and other sublimates from Parícutin Volcano, rare mercury minerals from Huahuaxtla, Guerrero, and other interesting minerals.

Purchases through the Roebling fund included a collection especially of silver minerals, part of the collection of Carlos Hoffman, of Mexico City; a kidney-shaped mass of wood-tin, weighing 85 pounds, from Durango, Mexico, and a large mass of the rare mercury-antimony sulphide livingstonite from Huitzuco, Mexico. A specimen of diaboleite from Tiger, Ariz., and minerals from such widely separated areas as Argentina and England were also secured through this fund. Outstanding specimens from the Canfield fund include a fine exhibition group of sulphur crystals from Sulphur, Nev., a collection of Franklin Furnace, N. J., minerals, and a specimen of stibiotantalite from Mozambique.

The chief accessions of ores came, as usual, by transfer from the Geological Survey. They include a considerable series of mica specimens from New England and Brazil, and asbestos from Canada and Vermont, collected by David M. Larrabee; described chrome ores from Cuba secured by T. Thayer; and ores of aluminum (bauxite) from Palau Islands collected by Dr. H. S. Ladd. Extensive sets of mercury ores, copper, and fluorspar were included in the curator's Mexican materials. A series of rare ores from the Belgian Congo and western Australia was presented by Robert Waskey.

The principal addition to the rock series was the extensive collection of lavas, ash, and other eruptive products from Parícutin and adjacent areas made by Curator Foshag during his studies of this newborn Mexican volcano.

Three meteorites not previously represented in the Museum series were presented by Dr. Stuart H. Perry. These consisted of a slice of the Pine River, Wis., meteorite, a specimen of the Dimmitt, Castro County, Tex., fall (weight 3,576 grams), and one specimen of the Livingston, Tenn., occurrence. In this connection, a gift by Dr. Eliot Blackwelder of silica debris, explosion debris, and quartz flour from Meteor Crater, Ariz., should be mentioned since these materials are supposed to have been formed by a meteor's impact at this place in prehistoric times.

The most important additions to the gem collection came as transfers from the Procurement Division of the Treasury Department. They include a large blue topaz of 685 carats, 3 fine aquamarines, the largest of 73 carats weight, an amethyst of 32 carats, and a tourmaline of 10 carats. Nicola G. D'Ascenzo continued his interest in the collection by adding the rare gem hambergite, a fine moss agate, as well as a sapphire colored yellow by means of X-ray treatment. Capt. Cecil T. Wallace donated 21 fresh-water pearls from the White River of Arkansas, and Dr. Edwin Kirk presented a jade bracelet showing green, lavender, and white colors in one piece. The gift from Otis

Beall Kent of 41 strands of beads provided a colorful addition to the exhibition series.

Outstanding among the gems received through the Canfield fund is a flawless, curiously etched beryl (aquamarine) of 201 grams weight, from Minas Gerais, Brazil. Through the Roebling fund a splendid chrysoberyl from Ceylon, weighing 120 carats, and the rare gem enstatite, were added to the gemstone collection. As a gift from the Frances Lea Chamberlain fund a collection of 29 alexandrites from Russia was secured.

Invertebrate paleontology and paleobotany.—The year's gifts in this division are comprised of many interesting additions to the Paleozoic collections. Important accessions for the different periods are given below.

From rocks of the Cambrian period there were gifts of two unusual specimens of the trilobite *Alokistocare* from E. W. John, an excellent example of the cystid *Eocystites* from T. O. Thatcher, and a most desirable accession of 367 type specimens of Middle Cambrian brachiopods from Montana, described by Dr. W. Charles Bell, and Middle Cambrian trilobites, described by Dr. Charles Deiss, donated by Montana State University, through Prof. Wayne R. Lowell.

From the Middle Ordovician were recorded 425 specimens from the unique cryptovolcanic structure at Kentland, Ind., gift of Dr. Robert R. Shrock, 73 specimens of brachiopods from Pennsylvania, from Dr. Lawrence Whitcomb, and 750 specimens of Bryozoa, corals, and other classes from Virginia and Tennessee, from Dr. Byron N. Cooper.

Under the Devonian were added 50 specimens from New Mexico, gift of Dr. Carl C. Branson, 170 specimens from Missouri, from Dr. Darling K. Greger, and 700 brachiopods from southwestern Ontario from Charles Southworth.

From the Upper Paleozoic rocks donations included one rare Pennsylvanian crinoid and 180 Pennsylvanian and Permian gastropods from New Mexico, received from Dr. Carl C. Branson; 500 specimens of Pennsylvanian fusulines, from V. H. Chase; 20 Permian gastropods from Dr. M. K. Elias; 35 specimens of Mississippian fossils from Kentucky Dam near Gilbertsville, Ky., from Portland P. Fox; approximately 5,000 specimens of Pennsylvanian fossils from near St. Louis, Mo., from Dr. J. Brookes Knight; 35 specimens of Pennsylvanian, Permian, and Triassic fossils from Idaho and Kansas, from Dr. Norman D. Newell, and 250 specimens of Pennsylvanian invertebrates from near Moab, Utah, from Dr. H. E. Vokes.

Gifts through the Springer and Walcott funds added other worthy Paleozoic fossils. Ten unusually fine crinoids were thus obtained through the Springer fund; 6 specimens from the Devonian of Ontario; and 4 specimens from the Silica shale of Ohio. Walcott funds were expended on two purchases and three field expeditions. The

material purchased consisted of 36 specimens of brachiopods and pelecypods from the Devonian shales of Ohio, and 2,100 Cenozoic mollusks from the Lord Calvert collection. The field trips conducted by Dr. G. A. Cooper and his associates resulted in about 5,000 specimens of Ordovician invertebrates from Alabama, Georgia, Tennessee, and Virginia, a similar number from the Mississippian and Pennsylvanian rocks of central Texas, and an equally large collection of Upper Paleozoic fossils from west and central Texas, together with 400 blocks from west Texas containing silicified fossils for etching.

The division received the following Mesozoic fossils by gift: An exceedingly valuable and carefully prepared collection of approximately 3,500 slides of Cretaceous Foraminifera from Arkansas, collected by Dr. W. H. Deaderick and donated by Mrs. Deaderick; a specimen of the fossil wood *Cupressinoxylon* from the Cretaceous of Maryland, from the Little Museum, Lansdowne, Md.; and 51 specimens of Cretaceous Foraminifera from Peru, from Benton Stone.

Many specimens were donated to the Cenozoic invertebrate collection. Four thousand fossil fresh-water shells were sent in by Marie E. Bourgeois; 14 Tertiary echinoids from Alabama from Dr. Carl C. Branson; 1,070 specimens of Tertiary fossils from Mrs. Effie M. Clark; 72 specimens of Pleistocene fresh-water gastropods from Utah, from Lt. R. L. Ives; and 12 paratypes of fossil mollusks from Dr. S. S. Berry.

Important collections transferred by the Geological Survey were: Approximately 3,700 types of Carboniferous and Permian fossils described mainly by the late Dr. George H. Girty; 76 specimens of Tertiary fossils from the Ohio Oil Co.'s Hammond No. 1 well at Salisbury, Md.; 200 Jurassic invertebrates from Sage Creek dome, Wyo.; 585 specimens of the ammonites *Prionotropis* and *Prionocyclus* from the Cretaceous of Wyoming, recently described by Dr. Otto Haas; approximately 1,000 specimens of Devonian and Mississippian fossils from the Central Mineral Region of Texas; and 95 Upper Cretaceous mollusks, including some types, from the Ripley formation near Dumas, Miss.

Among the notable specimens obtained by exchange are the following: 350 specimens of Mississippian invertebrates from Missouri, including an excellent representation of Fern Glen fossils, from Dr. Darling K. Greger; 101 Mexican Jurassic and Cretaceous invertebrates from the Instituto Geológico de México; 3 type specimens of Permian nautiloid cephalopods from the Chupadera formation of New Mexico, from Dr. S. A. Northrop; 30 specimens of late Silurian cystids from Dave Palmer; 50 Ordovician brachiopods from Trenton limestone of Quebec, from Dr. Franco Rasetti; 50 specimens of Paleozoic invertebrates, including 25 type specimens, from Dr. C. E. Decker;

and 127 specimens of Cretaceous and Paleozoic microfossils, including 50 types, from Dr. C. G. Lalicker.

Vertebrate paleontology.—The decrease in materials received in this division resulted largely from the fact that no expeditions to secure fossil vertebrate specimens could be carried on until just prior to the close of the fiscal year.

The extreme rarity of fossil bird remains made the gift of vertebrae, mandibles, and other bones of the extinct cormorant *Phalacrocorax auritus* from Florida, by Walter W. Holmes, very desirable. A fossil bird's egg from Hot Creek Valley, Sioux County, Nebr., presented by Al Daniels, was an interesting addition. Five fossil examples of the puzzling egg capsules of chimaeroid fishes from the Upper Cretaceous rocks of Mexico and elsewhere, studied by Dr. R. W. Brown, of the United States Geological Survey, were transferred by that organization.

Other vertebrate materials worthy of special mention are a mammoth tooth found in the mountains of Ecuador, presented by the estate of Miss Sophie P. Casey; 13 specimens of the fish *Mallotus villosus* found fossilized in concretions on the banks of a fiord on the west side of Greenland, from Dr. W. B. S. Thomas; and a partial skull of the porpoise *Eurhinodelphis*, from the Calvert formation in the Chesapeake Bay region, found by Dr. Carl L. Hubbs, James B. Schultz, and Robert C. Haven.

INSTALLATION AND PRESERVATION OF COLLECTIONS

Exhibition work progressed in all three divisions during the past year, with the installation and relabeling of the paleobotany hall marking probably the most notable advance. The reorganization of this hall, with the restriction of the fossil plant series to a continuous wall case 130 feet long, was concluded by the head curator and James Benn, with the assistance of Miss Jessie G. Beach, who prepared 450 new labels in legible black type averaging 30 words each.

The two exhibits completed and installed in the halls of vertebrate paleontology, in accordance with Mr. Gilmore's plans of the previous year, are striking examples of certain little-known fossil mammals. The preparation of one of these, the oreodon *Merycoidodon culbertsoni*, a cud-chewing swinelike animal found in the Oligocene rocks of Wyoming and purchased some years earlier from G. F. Sternberg, occupied the staff for a portion of 2 years. The other skeleton, a huge ground sloth (*Scelidotherium capellinii*), 9½ feet long and 5 feet high, found in Pleistocene gravel deposits in southern Bolivia and secured in exchange with the American Museum of Natural History, required much of the remaining time. Norman Boss assisted by Arlton C. Murray and Thomas Horne prepared and mounted these exhibits. The staff also made good progress toward the completion

of the next vertebrate specimen for public display, the large dinosaur *Camarasaurus*, which many visitors to the Dallas exposition will recall when it was under preparation there. This specimen, found in Dinosaur National Monument near Jensen, Utah, is being mounted as it occurred in the rock. When completely prepared it will form a single block measuring 10 by 18 feet. The staff also completed a number of smaller and miscellaneous items for the study series.

The work of checking and revising the card catalogs by Mrs. Vera M. Gabbert has been extended through the mammals and is now complete for the fishes, amphibians, reptiles, mammals, and birds. The card catalog of type specimens is now up to date.

The former strictly biological arrangement of the study collections, cutting through geologically associated assemblages, has been found less useful for research purposes and so difficult to maintain that a rearrangement of the fossil mammal study collections was begun during the year. Under the new arrangement large faunal assemblages will be sorted biologically but each kept together as a unit, i. e., Wasatch, Bridger, White River, Hagerman, Cumberland Cave, etc. Miscellaneous collections will be arranged biologically by periods of geological time. This arranging and sorting has been completed for the Paleocene, Eocene, and Oligocene. The Miocene, Pliocene, and Pleistocene collections are for the greater part already segregated according to this plan.

In the division of invertebrate paleontology and paleobotany, Curator Cooper has been entirely occupied in building up the biologic and stratigraphic collections by field work, exchanges, and preparation and study of portions of the backlog. His field work in the southern Appalachians and central Texas produced many choice specimens now installed in the biological series, particularly from Upper Paleozoic formations hitherto poorly represented. Associate Curator Loeblich has supplemented this work by selection of choice material from previously unexamined stratigraphic sets of Lower Paleozoic Ordovician and Silurian from the western and midwestern United States.

Dr. J. Brookes Knight continued his revisionary work on the biological collection of gastropods. He also unpacked and arranged the large collection of Pennsylvanian invertebrates from St. Louis County, Mo., presented by him to the Museum.

Dr. R. W. Brown, paleobotanist of the Geological Survey, carried forward his invaluable work in caring for Mesozoic and Tertiary plants. L. G. Henbest continued his work on the very extensive collection of fossil Foraminifera. His care in packing the extensive Deaderick collection of Foraminifera at Hot Springs, Ark., for shipment to the Museum was a guarantee of its arrival in excellent condition. Mention must be made of the work of Dr. Wilbert Hass, Geological

Survey, in building up the biological series of conodonts. Dr. J. S. Williams and Dr. Helen Duncan have charge of the large Carboniferous and Permian collections of the Geological Survey housed in the Museum.

Dr. Julia A. Gardner, aided by Miss Margaret Contant, assisted greatly by condensing Cenozoic collections in her charge to make room for the type specimens which had been removed from the building during the war.

The stratigraphic collections consumed much time during the year in their reorganization to find space for the many new acquisitions. Both the curator and associate curator were active in this revision and condensation, with the result that a definite arrangement of the whole series by horizons has been established. Associate Curator Loeblich started the large and difficult task of revising, condensing, and organizing the stratigraphic collections of Ordovician and Silurian fossils now comprising about one-third of the stratigraphic series. Dr. Loeblich's efforts here are preparatory to a contemplated condensation of the entire stratigraphic series.

The exchange collections also have been segregated, condensed, built up, and labeled in anticipation of calls for exchanges and gifts to foreign museums. Various labeled lots of Pennsylvanian fossils especially were added to these collections during the year.

Curator Cooper devoted a good part of his time to preparation of fossils, particularly the Mexican collections. The latter were completed and the share belonging to the Geological Institute of Mexico, three large boxes mostly of Permian fossils, was returned. He broke up hundreds of pounds of blocks brought in from the Mississippian rocks of central Texas and prepared a large set of choice specimens for identification and for the biological collection. Considerable time was devoted to the preparation and photography of brachiopods secured from the Ordovician rocks of the southern Appalachians. About 700 photographs were made of these specimens, which will become types when illustrated in his report on the "Chazyan and Related Brachiopoda." In addition, 200 illustrations were completed of Mexican Mississippian and pre-Cambrian species for use in his report on Sonora.

The etching of fossiliferous Permian blocks collected in Texas in 1945 and previous years was continued so this choice collection has been growing daily. Besides these Permian blocks, many small pieces from the Ordovician of the Appalachians and the Carboniferous of Texas were etched with very satisfactory results. Research Associate Knight assisted with this program by dissolving about 15 large blocks containing gastropods.

Dr. Byron N. Cooper, temporary associate curator during part of the year, prepared, by mechanical and chemical means, many trilobite

specimens in his study of Middle Ordovician species from the southern Appalachians. He etched numerous blocks collected by the 1945 field party and recovered new and interesting specimens that will be types destined for the biological collection. He also identified many specimens and revised parts of the trilobite biological collection.

In mineralogy and petrology one new case with interior and substage lighting showing some of the choice gem minerals, aquamarine, tourmaline, and spodumene, was installed in the exhibition hall. An exhibit demonstrating the radioactivity of uranium ore was prepared and located in the hall of economic geology, using a Geiger counter lent by the Geophysical Instrument Co., of Arlington, Va. This instrument registers by its sharp clicking the gamma rays given off by radioactive minerals.

All the American diamonds of the collection were gathered together and installed in a single case, where they show to more advantage than heretofore. Mr. Benn continued changing the monthly exhibit of birthstones and performing other services in connection with the division's exhibition work.

Miss Jessie G. Beach completed the preparation of the exhibition labels in the physical geology hall, as well as those of the mineral collection. She made progress in the same work on the ore collection, making a total of 4,000 of these hand-printed exhibition labels completed during the year.

Miss Theresa Blumenthal continued the card index of new mineral names and changes in the status of mineral species. This catalog furnishes a concise current index of the status and needs of the mineral collection. Mr. Benn has kept up the catalog of mineral localities for a similar purpose.

The study collections in this division are in good condition, completely cataloged, numbered, labeled, and indexed. All the new material of the year, some 1,500 specimens, was incorporated promptly in the collections so that there is no backlog. The exhibition collections are all properly arranged and fully labeled with fresh labels.

The tasks of the grinding and polishing laboratory were carried on as usual by B. O. Reberholt, who reports the following as special accomplishments of the year: Cut, polished, and etched iron and stony meteorites, 29; cut and polished minerals, rocks, and ores, 128; and prepared 608 thin sections of minerals, rocks, ores, and limestone fossils.

INVESTIGATION AND RESEARCH

The head curator, as time permitted, continued his research and identification work on the collections of invertebrate fossils. He forwarded the preparation of several studies on Ordovician Pelmatozoa, Ostracoda, and Bryozoa and made some reduction in the backlog of these classes of animals. The reprocessing of more than 10,000 slides

of Bryozoa, some of them dating back over 50 years and much in need of fresh gum for their future preservation, was a task carried on concurrently with researches on this class of organisms. Plans and preparation for the Smithsonian Centenary celebration occupied a part of the year's last quarter. An article, "The Smithsonian: Pioneer in American Geology," was written for publication in the Centennial issue of *Science*.

Curator G. A. Cooper spent his research time on the two reports, "Geology and Paleontology of the Caborca Area, Sonora" and the "Chazyan and Related Brachiopoda." The manuscript for the latter has been finished, as well as the photography of the specimens preparatory to making up the plates, so that this report should be completed during the coming year. He prepared a manuscript on the Mississippian fossils collected in Sonora, the second largest group of Mexican fossils under study. As the photographs of these specimens and some of the descriptions have been prepared, the work should also be finished in the next fiscal year.

Dr. J. Brookes Knight, research associate, prepared a paper revising the major categories of gastropod classification, which proved necessary when a revision of the peculiar group Bellerophontacea came under critical scrutiny. He also completed manuscripts on new anatomical features of the Bellerophontacea and on a revision of some hitherto unknown Cambrian bellerophontids. Inasmuch as his collection of Permian gastropod specimens is now virtually completely prepared, he has started work on his monograph on the subject. In addition to this research, Dr. Knight devoted time to problems of geological nomenclature in his capacity as chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America.

Dr. Byron N. Cooper, temporary associate curator, during the 4½ months he was stationed in Washington, completed a manuscript and made progress on the illustrations for a monograph on Middle Ordovician trilobites from the southern Appalachians in which he considers about 50 genera.

Research in vertebrate paleontology was limited this year because of the loss of Mr. Gilmore, although three of his papers were published. Dr. C. L. Gazin renewed his investigations and research on the Bridger fauna begun prior to the war, and a manuscript entitled "*Machaeroides eothen* Matthew, the Sabertooth Creodont of the Bridger Eocene" was completed and submitted for publication by the Museum.

Dr. W. F. Foshag proceeded with his studies on the mineral resources of Mexico as a part of the Geological Survey's program on the strategic minerals of Mexico, in collaboration with the Mexican Committee for the Study of the Mineral Resources of Mexico. As time permitted he continued further studies on the Parícutin Volcano,

particularly relating to the geochemistry of the lavas and fumaroles. Dr. Foshag returned to Washington October 8 and has since been occupied in completing his reports.

Associate Curator Henderson's study of meteorites is progressing as time permits. He prepared a series of iron meteorites which was forwarded to Dr. F. A. Paneth in England, who will make the age determinations. Another series was prepared for the Geophysical Laboratory, of Washington, D. C., to carry on similar studies. A portion of a series of lavas from Parícutin was analyzed preliminary to a study of the geochemistry of this volcano. An examination was made of the crystal ball presented by Mrs. Worcester Warner, to determine its possible internal perfection. The laboratory work is finished and the manuscript almost completed for this undertaking, which is in cooperation with the National Bureau of Standards.

Dr. John P. Marble returned to the Museum after a long absence with the Office of Scientific Research and Development and is continuing his studies in our laboratories on the age of rocks.

As in the past, members of the Geological Survey staff working in the Natural History Building continuously consulted Museum invertebrate materials in their work during the year. The division staff and members of the Survey worked intimately together, members of the Museum staff identifying collections brought in by the Geological Survey and members of the latter often accommodating the Museum with identifications in their various specialties. Dr. J. B. Reeside, Jr., chief of the section of paleontology, when not occupied in administrative matters, continued his researches on Mesozoic fossils; Dr. Ralph Imlay was especially engaged with the Jurassic fossils of the western interior of the United States and Alaska; Dr. L. W. Stephenson nearly completed his monograph on the Cretaceous (Lewisville formation) of Texas; Dr. Edwin Kirk made progress with his studies of Devonian and Mississippian crinoids; Dr. R. W. Brown is completing his revision of the Eocene (Wilcox) flora of southern United States; Dr. Wilbert Hass is redescribing type specimens of conodonts belonging to the National Museum and conducting research on conodonts from Devonian and Mississippian rocks; Dr. T. C. Yen, although now living in Philadelphia, frequently visits the Museum to continue his studies of Tertiary fresh-water gastropods; L. G. Henbest continued with his work on Paleozoic Foraminifera; Dr. C. Wythe Cooke's monograph on the Upper Cretaceous echinoids of the United States is progressing; Dr. Julia A. Gardner is revising Part 8 of "The Molluscan Fauna of the Alum Bluff Group of Florida" and Part 2 (Gastropoda) of "Mollusca from the Miocene and Lower Pliocene of Virginia and North Carolina"; Dr. Wendell P. Woodring is working on Pliocene mollusks from the Santa Maria District, Santa Barbara County, Calif.

The usual large number of visitors came directly to the division of mineralogy and petrology for information, and reports were given to 602 persons on gems, minerals, and meteorites, and on other examinations. In addition, the division prepared and sent out 527 letters direct to firms, private parties, and service men who have written in requesting information.

Officially the department was credited with 215 lots of geological materials referred for examination and report, many of these transactions consisting of large numbers of specimens. They were distributed as follows: Mineralogy and petrology, 111; vertebrate paleontology, 12; invertebrate paleontology and paleobotany, 38; and general geology cared for by the head curator, 54. In addition, each division identified numerous lots of specimens sent in directly to the curators or brought in by individuals during their visits to the Museum. Correspondence referred officially to the department for information furnished by the various curators numbered 323.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

The three divisions of the department completed the transactions, prepared the material, and distributed a total of 6,682 geological specimens during the year to schools, universities, research students, Government agencies and similar research organizations. These included 4 transfers of 25 specimens, 25 gifts of 1,725 specimens, 21 exchanges of 2,064 specimens, and the loan of 2,868 specimens in 48 transactions. In addition to this, the division of invertebrate paleontology and paleobotany sent 2,218 specimens, principally of Permian fossils, including 42 types, to the Instituto Geológico de México as their share of the material collected during the joint expeditions to Sonora in 1943 and 1944.

During the year 12 loans aggregating 2,083 specimens were prepared and one storage cabinet with six drawers was lent to the Cushman Laboratory for Foraminiferal Research for storage of National Museum Foraminifera.

NUMBER OF SPECIMENS UNDER DEPARTMENT

The early estimates of the number of specimens in the department were only approximate, so that the figures given below necessarily continue to be so. They are computed by taking the estimated figures of last year and adding the difference between the total of those specimens accessioned during the current year and those distributed to other institutions.

Mineralogy and petrology	258,175
Invertebrate paleontology and paleobotany	2,463,700
Vertebrate paleontology	29,821
Total	2,751,696

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DEPARTMENT OF ENGINEERING AND INDUSTRIES

(CARL W. MITMAN, *Head Curator*)

THE department experienced a subnormal year in the matter of new accessions, attributed in part to the generally unsettled conditions in its field following the cessation of hostilities. The more serious factor, however, was the lack in experienced professional personnel to carry on selective collecting in the rapidly expanding fields of science and industry within the department's scope. By and large the reduced staff performed admirable work. It maintained up-to-date all routine curatorial tasks and supplied all demands of individuals and other Government agencies for the usual information and identification services.

On March 4, 1946, Frank A. Taylor resumed his position of curator, division of engineering, after an absence of over 3 years on war duty. Major Taylor served in the Army's antiaircraft service and participated in the liberation of the Philippines. On June 30, 1946, the department lost through retirement three outstanding members of its professional staff: Dr. Frederick L. Lewton, curator, division of crafts and industries, following 34 years 4 months of service; Dr. A. J. Olmsted, associate curator, section of photography, with 26 years 1 month of service; and Mrs. Elizabeth W. Rosson, assistant curator, section of textiles, after 33 years 3 months of service.

Signal success can be reported in the first public presentation by the division of graphic arts in November 1945 of the Smithsonian Edition of etchings made from the plates of Charles W. Dahlgreen. With little or no advertisement other than newspaper reviews, 128 prints were sold to the close of the fiscal year, yielding over $600 to the Dahlgreen Fund. As reported last year, proceeds from these sales will be used to enhance the graphic-arts collections.

ACCESSIONS

Accessions for the year totaled 142, comprising 1,480 specimens. This represents a material decrease over last year, amounting to 20 percent in accessions and 53 percent in specimens. The disposition of this year's accessions was as follows: Engineering 19 (150 specimens); crafts and industries 57 (904 specimens); graphic arts, including photography, 66 (426 specimens). Of these, the following are worthy of mention:

Engineering.—A group of three Hollerith electromechanical tabulating machines were presented by the International Business Machines Corp. They are one of the series of foundation stones on which this enterprise is built. Dr. Herman Hollerith, a distinguished statistician, was a pioneer inventor of machines for tabulating, sorting, and selecting facts from voluminous compilations of records. Several high-speed precision gauges were presented by the Sheffield Corp., Dayton, Ohio. One of these instruments, a veteran mechanism of World War II, made a total of 29,078,325 measurements on nearly 6,000,000 37-mm. artillery shells, effecting a saving of 4,000 days' work over earlier methods of gauging. The United States Maritime Commission transferred six models of ships representing classes of standard cargo and passenger vessels procured by the Commission during the War. The models, made under the direction of the Commission and checked by its engineers, add to the authentic contemporary models which make up the bulk of the watercraft collection. Ralph E. Cropley continued to add to his gifts of illustrative material related to steamships and other watercraft. A scale model of the Baldwin-Westinghouse, geared, steam-turbine locomotive first introduced in 1945 was made for the collections and presented by the Baldwin Locomotive Works. It is a model of the Pennsylvania Railroad locomotives, class 6200.

In the section of aeronautics, two groups of aircraft models were received. One is a collection of 19 United States Navy types of the period following World War I, transferred by the Bureau of Aeronautics. The other is a collection of aircraft recognition models made by school children early in the World War II period under the direction of a Nation-wide project of the U. S. Office of Education, and transferred to the collections by that agency.

Crafts and industries.—The important textile accessions may be conveniently considered in four groups: Fabric samples mainly for record and study purposes; sewing machines and implements; quilts, coverlets, and other homecrafts; and miscellaneous, including color cards and photographs. In carrying out a long-established policy of acquiring textile samples as a record of the types of fabrics produced from time to time, the Office of the Quartermaster General, Army Service Forces, and the Navy Department, Bureau of Supplies and Accounts, transferred specimens of the various fabrics used by the services in World War II. These were made to conform to standard Government specifications, such as yarn size, thread count, weight per yard, type of finish, and application. In all, 141 different samples were secured. Specimens for the study series, including some exhibit material, were contributed by Tobler, Ernst & Traber; Chicopee Sales Corp.; and Kendall Mills. These comprised a series of Swiss bolting

cloth of several grades and sizes, ranging from 324 to 40,000 meshes per square inch, received from the first-named firm, and 30 specimens of unwoven cotton textile cloths sold under the registered names of "Bonlinn," "Masslinn," and "Webril," which were made by the Chicopee Manufacturing Corp., and the Kendall Mills. The Cotton-Textile Institute, Inc., renewed its valued cooperation of many years by the gift of 27 specimens of cotton fabrics made for the spring and summer trade of 1946. Examples of entirely new fabrics, resulting from demands of the armed services for cloths to meet special needs, have been furnished by the manufacturer, William Skinner & Sons. These include heavy nylon satins and twills having great strength and resistance to wear and wool-backed rayon fabrics. A pictorial, jacquard-figured, silk-and-wool fabric woven in 1876 by the Pacific Mills, Lawrence, Mass., to commemorate the Centennial of the Independence of the United States, was presented by Miss Laura Revere Little.

The greater part of the Museum's collection of sewing machines consists of original models on which the patents were based. The early commercial machines frequently varied from the original patent model and at this time very few of such machines are available. The Museum is very fortunate to have received two additions to this collection from John Whatley and the estate of Miss Lily Morgan Prettyman: One, a Quaker machine patented by William P. Uhlinger, Philadelphia, Pa., in 1858; the other, a Howe machine made in Bridgeport, Conn., about 1874.

Mrs. Elsie McDougall, an ethnologist who has made extensive studies in the textile arts of the Indians of central Mexico, added specimens illustrating Indian silk industry to those contributed by her in 1938. With these the curator has been able to set up two exhibits showing utilization by the Indians of two sources of raw silk: One, the spinning of silk filaments drawn from the large, protective tents made by larvae of a gregarious silk spinner, *Eutachyptera psidii* (Sallé); the other, the hand spinning of pierced cocoons of the ordinary mulberry silkworm after boiling in lime water to remove the gum. The mulberry silkworm was introduced by the Spaniards, and the native Indians were taught sericulture and the reeling of cocoons, but Mrs. McDougall's studies and the specimens which she contributed would indicate that the Indian spun-silk industry antedated the Spanish Conquest.

A number of additions were made to the collections of early homecraft textiles. Included were a seamless, single-weave, jacquard coverlet, having blue-dyed cotton warp and dyed wool weft of red, blue, and olive-green, woven in 1847 by H. and A. Seifert, of Mechanicsburg, Pa., for Daniel Baker, from his daughter, Miss Effie Baker.

The estate of Mrs. Estelle Randall Carlin, through Mrs. Louise C. Westbrook, presented a blue-and-white, cotton-and-wool, double-woven coverlet, showing figures of the snowball order and a pine-tree border, which was made in New York State about 1827. A cotton "Liberty" quilt with eagle design, exemplifying a sewing technique known as reverse applique or inlay work made in Connecticut about 1800 by Hannah Thomson, was lent by Mrs. Whiting Willauer. Prof. Lella R. Gaddis presented a specimen of hemp-wool carpeting from the home of Noah and Mary Gaddis, which was built in 1865 at Rossville, Ind. The hemp was grown on the farm and spun into warp by the grandmother and aunt of the donor; the wool was from a flock of sheep on the farm, and both the green and brick colors were obtained with vegetable dyes.

A number of examples of needlework done in the American home in the last century were added to the collections. Mrs. Grace Chaffee Smith presented a bag, bookmark, friendship album, and sampler, showing pictorial and flower designs, worked with colored wools in satin, tent, and cross stitch on linen canvas and perforated cardboard made by Ursula Chaffee and her daughters. Other specimens were received from Miss Mary Ellen Dashiell, Mrs. Eugene K. Slutz, and Mrs. Helen Pollock Bray. Miss Dashiell's gift was a lace-edged, cotton cambric bolster sham with a vine pattern embroidered in fancy knot stitch giving the effect of braiding, which was made about 1867 by her grandmother; from Mrs. Slutz was received an example of lacework known as darning on net, typical of the 1830's period; and Mrs. Bray gave a beaded bag with colorful flower and landscape pattern, representing an elaborate form of knitting fashionable in the early 1800's.

Specimens added to the sections of chemical industries and agricultural industries included examples of the applications of the newer plastics, contributed by Modern Plastics Inc.; a Babcock milk tester, 1885, received from Sydney Snowden Stabler; and an album of photographs and articles pertaining to Benjamin Holt's contributions to the development of harvesters and caterpillar tractors, presented by O. H. Eccleston.

The most valuable accession received by the division of medicine and public health was the gift of Merck & Co., Inc. It is a specially designed exhibit to illustrate the value of the mineral kingdom's contribution to materia medica. The minerals selected are arsenic, zinc, bismuth, antimony, sulphur, silver, gold, and iron. Each of the two cases composing the exhibit contains samples of the ores, colored transparencies showing how the ores are mined, how a typical medicine from each group is made, and important uses of outstanding medicines made from the element or a compound of it.

Dr. Milton Carpinter Cobey, through the Carpinter family, presented a wooden lemon squeezer and a porcelain feeding cup, both of types used a half century ago. The Abbott Laboratories donated 40 full-color reproductions from a collection of "Paintings of Army Medicine." A case of surgical instruments used in Philadelphia by Dr. James William White (1850–1916) was received as a gift from Dr. Earl S. Johnston. Two surgical instruments used in the practice of dental surgery by Dr. S. J. Cockerille were contributed by Miss Edith Cockerille. Dr. George Tully Vaughan contributed a combination knife-fork implement used by an amputee, William Henry Thelwell, a Confederate soldier. Mrs. A. R. Taylor presented a Jeffreys' oral respirator, an old device for purifying the air which is breathed in through the mouth. Specimens dealing with the early history of osteopathy in Iowa and Minnesota were contributed by Mrs. Marie Stern Walling, through Dr. Riley D. Moore. The Philadelphia Child Health Society donated 12 charts which interpret the latest data on food values for use in the section of public health.

The most scientifically valuable accession received by the section of woods and wood technology comprises 100 woods of British Honduras received as a gift from the Conservator of Forests. The export of forest produce is given as the sole reason for the original settlement of this colony, and the forest department is continuing its effort to have at least all its useful woods classified. Three accessions totaling 44 specimens were recorded as gifts of Maj. William H. Lambert who did some valuable collecting for the Museum while on duty in the Philippine Islands. The woods were obtained largely in the area of the southern tip of Mindoro Island, and are sufficient in quantity to furnish many specimens for distribution and exchange in addition to the specimen incorporated in the collection for comparison and study. Twenty-four specimens of fancy woods of Peru were contributed by Dr. J. G. Sanders. The woods were collected by the donor during clearing operations preparatory to establishing a cinchona plantation at Fundo Sinchono during the early part of World War II.

Graphic arts.—The most important accession again revolved around Charles W. Dahlgreen, who previously had presented the Institution with 76 of his etched and drypointed plates. Mr. Dahlgreen added 18 copper plates, making 94 in all. These plates were deposited by the Smithsonian Institution. He also presented as a gift 14 drypoints and etchings printed from the last-mentioned set of plates, and later made the handsome gift of 126 drypoints and etchings and 1 block print in color, which, added to the 74 prints previously given, constitute a record of his life's work in printmaking unequaled by any other museum. An accession of outstanding importance was the transfer from the Museum's division of birds of 65 Bien chromolithographs after Audubon's "Birds of America," among other prints.

While these prints, made in 1860–62, are not so highly regarded as Havell's earlier aquatints of 1827–38, they nevertheless have their own unique qualities and are in constant demand by collectors.

Dr. Alfred E. Banks, San Diego, Calif., presented the division with a Banks Pocket Braille Writer, Model No. 1, which he invented and constructed in 1940. It is one of three originally built in that year. The International Business Machines Corporation has since undertaken the manufacture of this new device for the blind as a contribution to the handicapped. The machine, which can fit in one's coat pocket, has but six keys and a spacer, produces Braille letters on a narrow paper ribbon, and can be used for taking dictation.

The estate of Robert Underwood Johnson presented the division with the original wood block on which the bookplate of Dr. Johnson was engraved by Timothy Cole. Cole, an American, is generally considered the most skillful of all wood engravers. Thomas Bewick discovered the modern method of engraving on the end-grain in the late eighteenth century, but it remained for American craftsmen of the latter half of the nineteenth century to bring this method to its ultimate refinement. Cole was the only man among these fine reproductive craftsmen to gain international fame for his wizardry with the burin. His original engraved wood blocks are therefore highly prized.

Walter Tittle presented the division with his "Arms Conference Memorial Folio" containing 25 drypoint portraits of statesmen who attended the Conference on the Limitation of Armaments, sometimes called the Washington Conference, which was held in Washington, D. C., from November 1921 to February 1922. A feature of this set is that each print is autographed by the statesman who sat for the portrait. Among the subjects are President Harding, Secretary of State Hughes, Elihu Root, Admiral Beatty, David Lloyd George, Aristide Briand, Earl Balfour, Marshal Joffre, Dr. Sze, and others of prominence. Francis R. Fast gave the division 12 finger paintings, the only specimens of this novel method of painting in the collections. This most ancient and direct of all processes has had a recent revival and Mr. Fast is among the most outstanding of current practitioners, having exhibited in many museums throughout the country. The St. Louis Post-Dispatch contributed as a gift a copy of its rotogravure section of August 12, 1945, containing what it considers to be the first 3-color radio photograph reproduced in rotogravure. The subject is a photograph of President Truman, Prime Minister Attlee, and Marshal Stalin taken at the Potsdam Conference. Karl Schrag presented the division with one of his aquatints, "Solace." The print is unusual in that the subject appears in white line with the remainder of the print in various aquatint tones of gray and black.

Charles B. Wilson presented the division with one of his lithographs, "Freedom's Warrior"; Harry F. Mela donated "Junior Marvel," a self-

filling fountain pen, old style, and two old pen points; Masta Displays gave the division seven examples of its silk-screen work including an unusual example of 3-color half-tone printed by the silk-screen process; Mrs. Jennie Warrick Wright donated an old sanding-box used to dry ink on quill-written manuscripts; and the Smithsonian Institution deposited one etching by Stephen Csoka, "Brooklyn Landscape," the Associate Membership print of the Society of American Etchers for 1945–46.

Items of interest accessioned in the section of photography were of many categories. As early as 1904 Dr. Arthur Korn in Germany was sending photographs by electricity. Dr. Korn brought these machines to the United States in 1939 in his flight to escape Nazi persecution. He died in Jersey City on December 21, 1945, at the age of 75 years, and his widow subsequently presented all the apparatus to the Museum. The equipment is of historical importance in the development of transmission of photographs by wire and radio, since it was the first machine to be publicly acknowledged as successful, although it was not commercially popular. Of equal importance, but a recent development of the late World War II, is a radar camera, a gift from Robert N. Davis. This camera was assembled by him in North Africa and used in both the Italian campaign and in the invasion of southern France. Aided by the radar photographs the aerial bombing became very much more accurate.

A historically important addition was a motion-picture camera and projector, lent by Arthur A. Eddy. This camera and projector were used in an early attempt to produce motion pictures around 1895. The frames were taken spirally on a glass negative and projected from a glass positive printed from this negative. The show would run for about a minute and was designed for amateur use. A Scoville view camera, period of 1885, and an Eastman plate camera of 1887 (this camera was marked a year before the introduction of the No. 1 Kodak, which used roll film) were the fine additions of A. J. Viken to the collection. From Capt. and Mrs. Michael Mahoney there was received as a gift an early 16-mm. Keystone Kinescope, and a Model E–32 projector, with a reel of Charley Chaplin in "Skip the Puddles." This accession is an important addition to the amateur motion-picture cameras and projectors. A new and startling development in three-dimensional photography is the Vectograph which uses polarized light. A single print or transparency suggests relief when viewed with the proper polaroid spectacles. Two prints and three transparencies were added to the collection, the gift of the Polaroid Corp.

Numerous patrons interested in the Museum's historical photographic collections contributed specimens heretofore not represented in the collections. From this source were received, for example, a Tele-Photo Cycle Poco C. camera, a Wynne "Infallible" exposure

meter, an "Ideal" portrait lens and ray filter all of the period of 1896, presented by Miss Sade C. Styron; J. U. Perkins presented an Agfa spark flash lamp and a box of Victor flash powder; and Dr. A. J. Olmsted donated a Cyclone magazine camera holding 12 plates of the period of 1900. Also 24 additions were made during the year to the permanent collection of pictorial photographs.

INSTALLATION AND PRESERVATION OF COLLECTIONS

In the department as a whole only one major installation project was undertaken during the year. This was the construction and decoration of a full-size replica of an eighteenth-century apothecary shop of two rooms and the installation therein of some 1,200 unique, original pieces typical of the equipment, library, and accessories once contained in such an establishment. The project required 13 months to complete, utilizing the skills of the Museum's craftsmen, artists, and preparators working under the direction of Dr. Charles Whitebread, associate curator, division of medicine and public health. This exhibit and the hall containing it were opened to the public on May 15, 1946.

In addition to this major undertaking a wide variety of installation, maintenance, and preservation work was carried on throughout the department by a subprofessional staff of five persons. Typical of these activities are the following: Construction and installation of a diorama illustrating the first iron truss railroad bridge in America; making an inventory of, cleaning, renumbering, and labeling the watch collection of over 500 specimens and arranging it in storage as a reference collection: replacing worn-out negatives of drawings of the Historic American Merchant Marine Survey from which prints are distributed throughout the country and refiling the entire series in an improved way; condemning obsolete exhibition material and making major repairs on historical aircraft and models of watercraft; making 11 new installations of textiles and 56 rearrangements of older textile exhibits; reducing in size, renumbering, and restoring 1,600 wood specimens; fumigating textile and wood specimens against insect attack; and finally, repairing and remounting three traveling exhibits of the graphic arts, including the cutting of 100 new mats.

As in former years, the division of graphic arts held its special monthly exhibitions. These were as follows:

GRAPHIC ARTS

July: Prints and drawings by the Artists' Guild of Washington.
August: American etchings selected from the permanent collection.
September: 15 lithographs and 8 drawings by John Steuart Curry.
October: 19 aquatints and 18 drawings by Lt. J. Jay McVicker, U. S. N. R.

November: 33 prints consisting of aquatints, etchings, soft-ground line engravings and lithographs by Karl Schrag.
December: 42 etchings and drypoints (the Smithsonian Institution Edition) from plates given the Institution by Charles W. Dahlgreen.
January: 29 lithographs by Charles B. Wilson.
February: 28 lithographs and etchings by Bertha Landers.
March: 35 lithographs by Otis Philbrick.
April: 40 prints consisting of soft-ground, aquatints, wood-engravings, monotypes, and lithographs by Edgar Imler.
May: 49 lithographs by Lily S. Converse.
June: 25 drypoint portraits, autographed, of statesmen attending the Disarmament Conference of 1921–22, by Walter Tittle.

PHOTOGRAPHY

July: 25 prints in color by Capt. Dudley Lee.
August: Photographic Society of America. Ninth Annual Salon.
September: 83 prints by George W. Ackerman.
October: 60 prints by Dr. J. O. Fitzgerald.
November: 71 prints by A. Aubrey Bodine.
December: 41 prints by Stuyvesant Peabody.
January: 75 prints by Metropolitan Camera Club Council.
February: 37 prints by John W. Doscher.
March: 83 prints from National High School Salon.
April: 37 prints by Dorothy and Paul K. Pratt.
May: 57 prints by Wood Whitesell.
June: 50 prints by Cecil B. Atwater.

INVESTIGATION AND RESEARCH

Research in the strict sense of the word was not an active function of the department owing to the existing inadequacy of the staff. Study and investigation on the other hand are a daily activity largely to satisfy the demands for information, to determine the acceptability of specimens offered to the Museum, to make identifications and classifications of material, and to be advised of current activities and advancements in the industrial and engineering fields included in the department's scope.

By and large, the department's greatest service is making available and assisting citizens and other Federal agencies in the use of its exhibited and study collections, subject files of illustrative material and original data, and its libraries, in pursuing their studies. It is conservatively estimated that 100 investigators making repeated visits and requiring at least an hour or more of a staff member's time, used these facilities during the year. In addition, an average of 10 consultations a day were held with individuals on specific questions requiring varying amounts of reference work by the staff. Finally, the staff made in the course of the year several hundred identifications of materials from many sources both private and public, which, in many cases, necessitated study and investigation by the staff. Some examples of these several classes of services follow:

A week's study of material on ferry boats by an outside investigator; extended study of Alaskan kyaks by specialists, Transportation Corps, United States Army; examination of collections of homecraft textiles and study of relevant literature by four separate outside investigators; assisting Department of Justice in examination of cabin construction of Wiley Post's Lockheed Vega airplane in connection with patent litigation and identifying cord and rope for the same department in connection with criminal investigations; supplying photographs of Chinese junks to the Office of Strategic Services and furnishing the United Nations Relief and Rehabilitation Administration with information on the methods of extraction of edible oils from seeds and the types of machinery used, especially in China; checking a chronological history of aeronautics for the National Advisory Committee for Aeronautics; identification of 16 lots of prints including one of 300 original but unsigned drawings of old masters of the sixteenth and seventeenth centuries; supplying information on ships, airplanes, and coaches for the production of model kits by model supply companies, especially firms recently established by veterans; identification of woods for the Agricultural Research Administration, the United States Army, the National Lumber Manufacturers Association, and others; and furnishing an officer of the Chinese Army with literature and photographs relevant to public-health exhibitions.

Staff members visited several other institutions during the year. Frank A. Taylor, curator of engineering, studied the new technical exhibitions of the Benjamin Franklin Museum of the Franklin Institute, Philadelphia, Pa. Dr. F. L. Lewton, curator, division of crafts and industries, attended the fall as well as the annual meetings of the Early American Industries Association held in Northampton, Mass., and New York City, respectively. This association deals with the tools and processes of industries and crafts that had their beginnings in America's early days, and opportunity was given at both meetings to examine and study the fine collections of tools and products. Jacob Kainen, assistant curator of graphic arts, visited the print divisions of the Metropolitan Museum of Art and of the New York Public Library and the firm of Masta Displays, one of the outstanding companies in the silk-screen field of the graphic arts. He obtained much valuable information on print filing and storing systems used by the above institutions and acquired as a gift seven fine examples of silk-screen printing from Masta Displays.

DISTRIBUTION AND EXCHANGE OF SPECIMENS

Materials distributed from the department consisted of prints of the graphic arts, ship drawings, and miscellaneous photographs of specimens in the collections. The graphic-arts prints numbering

1,575 specimens were contained in seven traveling exhibits, "How Prints Are Made." These were circulated for a total of 17 months in 12 States. The ship drawings were copies of photostat negatives included in the Historic American Merchant Marine Survey maintained by the division of engineering. During the year 551 copies of these negatives were furnished to private purchasers. This brings the total number of copies distributed since the survey was completed in 1938 to 4,862. In the course of the year close to 1,000 photographs of specimens or of other data available in the department were supplied at nominal cost to students, writers, and educators.

NUMBER OF SPECIMENS UNDER DEPARTMENT

Engineering	17,664
Textiles	17,381
Woods and wood technology	13,679
Chemical industries	23,373
Agricultural industries	2,312
Medicine and public health	21,628
Graphic arts, including photography	48,013
Total	144,050

DIVISION OF HISTORY

(THEODORE T. BELOTE, *Curator*)

IN the division of history the past year was marked by a number of important additions to the collections and by several noteworthy reinstallations of exhibits. In addition, several unusual matters came up in connection with the division's work, among them being the installation of a special temporary exhibit of naval materials in the foyer of the Natural History Building; the request to Congress for the erection of a special building to house the national historical collections; and the formulation of plans for the installation of special historical exhibits in the Smithsonian, Natural History, and Arts and Industries Buildings in connection with the official observance of the Smithsonian Centennial.

ACCESSIONS

The total number of accessions received during the year was 56, aggregating 3,600 individual specimens. This is about twice as many specimens as were received last year.

To the art collection came an oil portrait of Rear Adm. John L. Davis, United States Navy, made in Lima, Peru, in 1859, when Admiral Davis was a captain—presented to the Museum by Mrs. James A. Wright, who also donated a water-color sketch of the U. S. monitor *Montauk* made by A. C. Stuart in 1865.

The arms collection was increased by a pair of muzzle-loading pistols owned during the Revolutionary War by Col. Joseph Cilley, of the First New Hampshire Regiment. They were presented by Ben Cilley.

Accessions to the costumes collection were noteworthy. Benjamin Harrison McKee and Mary McKee Reisinger, heirs of Mary Harrison McKee, gave to the Museum the dresses that since 1915 have represented the administration of President Benjamin Harrison in the collection of dresses of mistresses of the White House. Mrs. Calvin Coolidge, through Mrs. H. W. Underwood, presented an ostrich-feather fan, a pearl necklace, and a lace and chiffon handkerchief used by Mrs. Coolidge in the White House, 1925–29. These objects were installed in the case with the dress of Mrs. Coolidge presented by her in 1930.

The general collection of American period costumes was enriched by the addition of four dresses, each in an excellent state of preservation and each an unusually fine example of costume of the period it represents. Mrs. Charles C. Osgood gave the Museum a white muslin wedding dress that was worn by her great-grandmother in 1814. The heirs of Rose Jones, through M. G. Gulley, presented the dress worn by Mrs. Jones at her wedding in 1855. A taffeta dress worn by the wife of a senator at the first inaugural ball of President Lincoln in 1861 was given by the Bingham Family through Mrs. E. S. Bartlett and Mrs. S. C. Crow. Mrs. J. G. Locke gave the Museum a wedding dress, veil, and complete set of accessories worn in 1894.

Additional costume accessions include two pairs of children's gloves and a gentleman's white embroidered vest, both of the nineteenth century, given by Miss M. Agnes Neill, and a brown coat of the late nineteenth century presented by Mrs. C. A. Diven.

The collection of military mementos was increased by the addition of a sword and scabbard owned during the War with Mexico by Maj. Gen. Silas Casey, United States Volunteers, and a silver vase presented to him in recognition of his services during that conflict. These objects were donated to the Museum by the estate of Miss Sophie P. Casey through her heirs, Mrs. Elizabeth G. Casey Bispham, Mrs. Sophie Heberton Weiss, and Mrs. Margarette Wyatt Pennoyer. The vase bears the following inscription: "To Capt. Silas Casey, 2 Inf. U.S.A. For his Bravery and Skill at Contreras, Churubusco & other battles of Mexico for his Gallant leading of the Storming Party of Regulars at Chapultepec where he was severely wounded The gift of the Citizens of his Native Town & others, E. Greenwich, R. I. Augst 1848."

The military collection was increased by the receipt of a Japanese parachute found in New Guinea and presented to the Museum by Corp. Robert B. Browne, United States Army. A collection of United States Army insignia of the period of World War II was received from the War Department. A series of large topographic maps of World War II was also received from the War Department.

To the naval collection were added 37 models of United States, French, and British warships of World War II, presented by the H. A. Framburg & Co. A collection of more than 700 pieces of naval insignia of World War II was received from the Navy Department.

The numismatic collection was augmented by the receipt of examples of the United States coins struck at the Denver, Philadelphia, and San Francisco mints in 1945. From the Treasury Department, Bureau of the Mint, also came a copy of the Peary Polar Expedition silver medal bearing on the obverse a portrait of Rear Adm. Robert E.

Peary, United States Navy, in polar costume on a medallion superimposed on the face of a compass that it almost entirely covers; below the portrait appears the legend "Peary Polar Expedition, 1908–1909." On the reverse of the medal is a representation of the United States flag flying to the right between two Eskimo dogs, and below in eight lines is the legend "Presented in the name of Congress in recognition of his efforts and services as a member of the Peary Polar Expedition of 1908–1909 in the field of science and for the cause of polar exploration by aiding in the discovery of the North Pole by Admiral Peary."

The pictorial collections were increased by the gift of a water-color sketch showing the design of the ensign of the English East India Co. in 1776, from Prof. Sir Geoffrey Callender, director of the National Maritime Museum, Greenwich, England, through Leander McCormick-Goodhart.

The philatelic collection was increased by the addition of 1,705 specimens, nearly 400 more than were received last year. Foreign stamps from the Universal Postal Union and new issues of United States stamps, in all numbering 1,649 specimens, were received through the Post Office Department, and 56 specimens came as gifts from individuals. Capt. Bruce A. deBourbon-Conde presented 53 unused German stamps of the regular postal service and the official stamps in use on the eve of the conquest of the Reich. These stamps were captured from the German Government by the Eighteenth Airborne Corps of the United States Army. Col. Hans Lagerloef gave a strip of three Panay Provisional stamps issued in 1899 in the Philippine Islands, as an addition to the large collection of Aguinaldo stamps presented by him last year.

INSTALLATION AND PRESERVATION OF COLLECTIONS

The most notable installation accomplished during the year was that of the third inaugural gown of Mrs. Franklin Delano Roosevelt. This costume was installed in a single case recently constructed for that purpose and placed in the costumes hall. The form on which the dress was installed was made by Andreas J. Andrews, of the staff of the department of anthropology.

A number of costumes of much historic interest were transferred during the year from the west wall cases of the costumes hall to a series of special forms. The use of these forms not only has greatly improved the appearance of the display but also will facilitate the preservation of the costumes from deterioration.

The dress of Mrs. William Howard Taft was repaired by an expert seamstress, Mrs. Alice Watts. The weighted silk chiffon, which was the basic material of the dress, was entirely replaced by a pure-dye silk chiffon procured with the assistance of Julius Garfinckel & Co.

With the repair work and the new material this gown should stand up under exhibition conditions for an unlimited period.

Another important task accomplished during the year was the reinstallation of the furniture collection in the west hall and the addition to it of a small but interesting collection of men's costumes formerly in storage. This furniture now presents a much more effective appearance, and the costumes in the wall cases furnish an excellent background for the furniture in the floor cases. The costumes include both eighteenth and nineteenth century examples, of special interest being some very handsome colonial costumes and also various articles of apparel owned by Thomas Jefferson during the early part of the nineteenth century. A costume of an unusual type included in this series is a judicial robe worn by John Jay, the first Chief Justice of the United States.

Some improvement was made in the facilities for the storage of the study collections of coins and medals by the renovation of a small storage room formerly part of the historical suite and the installation of a special alarm on the door of this room. At the same time a large iron safe and a series of six quarter-unit storage cases, each fitted with drawers divided into compartments suited for storing coins and medals, were installed in this room. This equipment will greatly facilitate the storage of decorations, medals, and coins.

The problem of space for the installation and preservation of the historical collections continues to be an acute one. There is little or no space left in the building for expansion, either for the exhibition material or for the study series in storage. The space available is divided into a number of small units and is exposed to much dust and dirt from which valuable and often irreplaceable specimens can be protected only through the use of airtight cases, which at the present time are not available. Since the primary object of all historical exhibition series is to tell the story of the development of some phase of local or national history, and the primary object of all storage series is to preserve historical materials from deterioration, adequate space is of paramount importance and is essential to the proper functioning of any historical museum unit. Among the new buildings planned for the Smithsonian Institution is one to be devoted to American history, and only when that is provided will the Museum's invaluable historical mementos and archives be displayed and protected as they should be.

INVESTIGATION AND RESEARCH

The various members of the staff have each performed important processes in connection with research and investigation in their respective fields. The curator added a valuable series of notes concerning coins, medals, and insignia to similar series assembled by him in recent

years. The associate curator, Capt. Charles Carey, has done likewise in connection with the history of arms and uniforms. Miss Margaret Brown, scientific aide, assembled notes on the history of American costume, which constitute an admirable basis for a bulletin on this subject.

Members of the staff at various times assisted the War, Navy, Treasury, and Post Office Departments in connection with materials of military, naval, numismatic, or philatelic interest. A great deal of information was furnished on these subjects to correspondents and to those visiting the division in person. Lots of specimens received for examination and report during the year numbered 50.

NUMBER OF SPECIMENS UNDER DIVISION

Art	1,644
Civil	16,307
Military	28,231
Naval	3,108
Numismatic	51,039
Philatelic	417,513
Pictorial	16,923
Total	534,765

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ACCESSIONS DURING THE FISCAL YEAR 1945–46

(Except when otherwise indicated, the specimens were presented or were transferred, in accordance with law, by Bureaus of the Government)

ABBOT, Dr. CHARLES G., Washington, D. C.: 1 Bromoil print by Rudolf Eickemyer (170828); 2,856 beetles collected at Tyrone, N. Mex. (172534).

ABBOTT, Mrs. ISABELLA, Honolulu, Hawaii: 26 bottles of sediment containing diatoms (170811).

ABBOTT, Lt. R. TUCKER. (See under Harvard University, Museum of Comparative Zoology.)

ABBOTT FUND, W. L., Smithsonian Institution: 1,357 bird skins; 4 nests and 42 mollusks collected by M. A. Carriker, Jr. (169299).

ABBOTT LABORATORIES, Chicago, Ill.: 40 full-color reproductions from the Abbott Collection "Paintings of Army Medicine" (170865).

ABRAMOWITZ, SEYMOUR A., Newark, N. J.: (Through Maj. H. A. MacCord) A specimen of marcasite from near Mourmelon-LeGrand, 16 miles east of Reims, France (171325).

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, Philadelphia, Pa.: 43 plants, mostly from South America (172679, exchange).

ACKERMAN, GEORGE W., Washington, D. C.: 83 pictorial photographs for special exhibition during September 1945 (171156, loan).

ACUNA, Ing. JULIAN. (See under Estación Experimental Agronómica.)

ADDIS, C. J., Uvalde, Tex.: 4 slides of flies collected in Uvalde (168715).

AGRICULTURE, U. S. DEPARTMENT OF, Washington, D. C.: 14 plants from Puerto Rico (172185).

Bureau of Entomology and Plant Quarantine: 1 mollusk from Venezuela, 15 amphibods from Leleboon Islands, and 1 isopod (170968); 12 mollusks from Mexico and Puerto Rico (171028); 28 land and freshwater mollusks and 2 leeches from Senegal, West Africa, and 4 isopods from Mexico (171290); 29 fishes, mollusks, reptiles, and marine invertebrates (171366); 1 mollusk from Jamaica (171441); 6 mollusks from Oahu, Hawaii (171568); 8 mollusks from Alaska (171733); (through Dr. H. K. Townes) 67 land and fresh-water mollusks from Maryland and Pennsylvania (171792); 12 mollusks from Veracruz, Mexico (171809); 9 mollusks from Alaska and England (172333); 2 mollusks from Bermuda (172381); 2 mollusks from Brazil and England (172632); 1 mollusk, 9 isopods, and 2 amphipods (172809); 1 mollusk from Guatemala and 5 isopods (173072); 11 mollusks and 1 crustacean from Holland, Puerto Rico, and Hawaii (173295); 140,000 miscellaneous insects, largely estimated, collected by men in the armed services and including also insects retained during the year from specimens sent for identification (173375).

Office of Foreign Agricultural Relations: (Through Claud L. Horn) Herbarium specimen and 5 photographs of plants from Peru (170731); (through Jane Roller) 1 plant from Bolivia (173221).

Forest Service: 1 plant from New Mexico (171646); (through Doris W. Hays) 2 plants from North Carolina (171794); 5 plants from Ecuador (173112).

Bureau of Plant Industry, Soils, and Agricultural Engineering: 1 plant from Brazil (171453); (through Carl O. Grassl) 46 economic grasses (171562); (through B. Y. Morrison) 84 photographs, largely habitat views of Chinese plants, by Dr. Joseph F. Rock (171725); (through Dr. Rogers McVaugh) 2 plants from Texas (171951); 31 plants collected by Dr. R. J. Seibert in Peru (172529); 6 plants from Brazil (173271).

AGUAYO, Dr. C. G., Habana, Cuba: 14 paratypes and topotypes of Cuban operculate land mollusks and a rare land shell (170716, 172449).

ALCORN, J. R. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

ALDRICH, F. R., Balboa, Calif.: 2 mollusks (172981).

ALDRICH, Dr. JOHN W. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

ALEXANDER, Dr. CHARLES P., Amherst, Mass.: 39 flies, including 2 slides and 34 paratypes (161105, exchange); 167 insects, mostly flies, collected by Lerio Gomes (171197); approximately 35 tipulid flies (172127, exchange).

ALLARD, H. A., Arlington, Va.: Collection of 5,000 plants from the Dominican Republic (171248, collected for the Museum); 37 plants from Virginia (171963); 625 plants from West Virginia (171833).

ALLEN, Ross, Ocala, Fla.: 1 rainbow snake from Silver Springs, Fla. (170979).

AMERICAN MUSEUM OF NATURAL HISTORY, New York, N. Y.: 4 casts of fossil reptiles (170951, exchange); (through Charles M. Bogert) 13 fishes from Arnett Canyon, Pinal County, Ariz., collected by Mr. Bogert in 1945 (171421); 1 beetle (173393, exchange).

AMERICAN NUMISMATIC ASSOCIATION, New York, N. Y.; (through Martin F. Kortjohn) 69 coins of Australia, Austria, Belgium, Bolivia, Brazil, Ceylon, Chile, Colombia, Cuba, Curaçao, Czechoslovakia, Finland, France, Liechtenstein, Mexico, Netherlands, Newfoundland, Saudi Arabia, Serbia, Switzerland, Union of South Africa, Travancore, and Uruguay (170770, loan).

AMPHLETT, A. W., Ball Ground, Ga.: 2 specimens of uranophane and 1 specimen of mica from Amphlett Mica mine, Ball Ground, Cherokee County, Ga. (171296).

ANDERSON, Dr. CHARLES R.: (See under The Rockefeller Foundation and the Carlos Findlay Laboratory.)

ANDERSON, Lt. Col. GAYLORD W. (See under War Department, Office of the Surgeon General.)

ANDRE, Dr. FLOYD, Washington, D. C.: 277 bugs, representing 73 species and including 2 paratypes (171739).

ÁNGEL, Brother HILARINO. (See under Colegio de la Salle.)

ANONYMOUS: 2 bird skins (170752, found in collection without number); 1 stereo portrait, on albumen paper, standing figure of a lady (171122); German flag and decoration of World War II, and 5 military arm bands of the same period (171183).

APOLINAR-MARÍA, Rev. Brother, Bogotá, Colombia: 7 plants from Colombia (168655).

ARCHBOLD BIOLOGICAL STATION, Lake Placid, Fla.: (Through L. J. Brass) 73 grasses from Florida (171065, 171755, 172524).

ARIZONA, UNIVERSITY OF, Tucson, Ariz.: (Through Prof. Frank W. Gould) 107 plants from Arizona (170782, exchange); (through Prof. Walter S. Phillips) 37 ferns from Arizona (170784, 171872, exchange); 3 ferns from Arizona (170982, exchange); (through Prof. Robert A. Darrow) 112 grasses from Arizona (172574, exchange).

ARNOLD, Dr. GEORGE. (See under National Museum of Southern Rhodesia.)

ARRIETA M., Ing. DARIO L. (See under Mexican Government, Department of Agriculture.)

ARTISTS' GUILD OF WASHINGTON, Washington, D. C.: 34 drawings and prints by members of the Artists' Guild of Washington, for special exhibition during July 1945 (170773, loan).

ARWIDSSON, Dr. TH. (See under Naturhistoriska Riksmuseet.)

ATWATER, CECIL B., Newtonville, Mass.: 50 pictorial photographs for special exhibition, June 17 to 30, 1946 (173389, loan).

AUSTRALIAN GOVERNMENT, *Council for Scientific and Industrial Research*, Canberra City, Australia: 89 grasses from Australia (171064, exchange).

BAARDSE, JOHN, Washington, D. C.: 5 cultivated plants (171499).

BAHOVEC, FRED, Baranof, Alaska: 20 mollusks, 2 starfishes, and 2 lots of other invertebrates (171047).

BAILEY, Lt. Col. F. M., Norfolk, England: 33 identified butterflies from Tibet (173170).

BAILEY HORTORIUM, Ithaca, N. Y.: 1 cultivated plant from Uruguay; 5 plants (171263, 172998, exchange).

BAILEY, Dr. REEVE M. (See under University of Michigan. Museum of Zoology.)

BAKER, EFFIE, Baltimore, Md.: Seamless, single-weave jacquard coverlet, woven in 1847 by H. and A. Seifert, Cumberland County, Pa., for Daniel Baker (1821–1905), of Church Town, Pa. (170812).

BAKER, R. H. (See under Navy Department, Naval Medical Research Unit No. 2.)

BALDWIN LOCOMOTIVE WORKS, Philadelphia, Pa.: (Through M. K. Wright) Model of Baldwin-Westinghouse geared steam-turbine locomotive (172174).

BANKNOTE ENGRAVERS GUILD LOCAL NO. 32, INTERNATIONAL PLATE PRINTERS, DIE STAMPERS, AND ENGRAVERS UNION OF NORTH AMERICA, Washington, D. C.: 1 souvenir sheet of stamps for use in connection with designing the Smithsonian Institution Centennial Stamp (173286).

BANKS, Dr. ALFRED E., San Diego, Calif.: 1 Banks Pocket Braille Writer, model #1 (170810).

BANNER, A. H., Bellingham, Wash.: 652 crustaceans and a number of mollusks (172818).

BANNON, ARTHUR H., Portsmouth, Ohio: 5 bear skins collected by donor in British Columbia and Yukon (157753).

BARBER, HERBERT S., Washington, D. C.: 1 plant from Great Falls, Va. (170724).

BARBOSA, Dr. FREDERICO, Pernambuco, Brazil: 71 specimens of mosquito material, representing 5 species, all from Brazil (173380).

BARKLEY, Dr. FRED. (See under University of Texas.)

BARNES, G. L., Fort Mason, Calif.: A collection of 76 ethnological specimens from the northeast coast of New Guinea (170765).

BARNES, RALPH C. (See under Federal Security Agency, U. S. Public Health Service.)

BARNÉS, VENTURA, Jr., Mayagüez, Puerto Rico: 1 skin of a Puerto Rican broad-winged hawk (the second known specimen of the form) (172355).

BARROS V., Prof. ERNESTO, Concepción, Chile: 200 grasses from Chile (172000).

BARTLETT, Mrs. E. S., Detroit, Mich. (See under the Bingham Family.)

BARTLEY, FLOYD, Circleville, Ohio: 46 plants from Ohio (171708).

BARTON, Lt. OTIS, New York, N. Y.: 15 fishes from Tanamerha Bay, New Guinea, collected by the donor during November-December 1944 (171083).

BARTOS, Lt. WILLIAM A., F. P. O., San Francisco, Calif.: 9 shrimps, 7 crabs, 2 fishes (170517).

BARTSCH, Dr. PAUL, Washington, D. C.: 1 bat, 2 white-footed mice, 1 red-eyed vireo, 1 gray fox (170771, 170913, 170987, 173276); 1 black-headed cacique (171741).

BASSLER, Dr. R. S., Washington, D. C.: 1 5-negative panorama photograph of the City of Washington from Smithsonian Tower (173115).

BAUMANN, Mrs. CHRISTOPHER C., Aurora, Ill.: 1 American pressed-glass honey dish in the dahlia pattern (171581).

BAYER, Sgt. FREDERICK M., A. P. O., San Francisco, Calif.: 7 plants from Luzón and 11 from Okinawa (170838, 171354, 171632).

BAYER, TED, Coral Gables, Fla.: 2 reptiles from Okinawa collected by donor and Gilbert Neurohr (172662).

BEALS, ROBERT V., San Francisco, Calif.: (Through Mrs. Doris H. Blake) 128 marine shells from Milne Bay, New Guinea (171411).

BEAMER, Prof. R. H., Lawrence, Kans.: 9 bugs (paratypes) (169929, exchange). (See also under University of Kansas.)

BEARD, JOHN, Forestry Division, Grenada, B. W. I.: 7 plants from British West Indies (171853).

BEATTY, HARRY A., Christiansted, St. Croix, Virgin Islands: Bird bones and mammal bones from an archeological site at "River Settlement," Virgin Islands; also small collection of miscellaneous insects and 4 vials of parasitic worms from Virgin Islands (165402, 169958).

BEETLE, Dr. ALAN A., Davis, Calif.: 21 grasses from California (172263). (See also under University of California, College of Agriculture.)

BELASCO, DAVID M., F. P. O., San Francisco, Calif.: 155 minute marine mollusks and 1 vial of Foraminifera from New Hebrides (170786).

BELKIN, JOHN N., Ithaca, N. Y.: 153 pinned adult mosquitoes from Japan (172476).

BENEDICT, JAMES E., Silver Spring, Md.: A fern from Maryland (172716).

BENJAMIN, Lt. (jg) D. M., Minneapolis, Minn.: 27 mosquitoes, representing 3 species (171805).

BENNETT, Dr. A. B. (See under Lt. Comdr. Green Clay Goodloe.)

BENNETT, Maj. HARRY J., A. P. O., San Francisco, Calif.: 884 mollusks from the Kabakan area, Mindanao, Philippines (170954).

BENNETT, Lt. LOGAN J., F. P. O., San Francisco, Calif.: 29 birds from Admiralty Islands (171251).

BENSON, Dr. LYMAN, Claremont, Calif.: 128 plants from the western United States (170826, exchange).

BENTLEY, Col. WILLIAM C., Maxwell Field, Ala.: Court dress of an Arab woman of Xauen, Spanish Morocco, acquired by the donor in Morocco in 1932 (173207).

BEQUAERT, Dr. JOSEPH. (See under Harvard University, Museum of Comparative Zoology.)

BERGER, Mrs. TILLIE H., Washington, D. C.: 1 cultivated plant and 3 plants from Washington, D. C. (171084, 172179).

BERKS COUNTY, HISTORICAL SOCIETY OF, Reading, Pa.: (Through G. W. Clemens) Decorated stove plate cast in 1763 at the Colebrookdale Furnace, Berks County, Pa. (172890).

BERN, Lt. HOWARD A. (See under Lt. Merle F. Hansen.)

BERRY, Dr. S. STILLMAN, Redlands, Calif.: 12 fossil mollusks (paratypes) (171243, exchange).

BIBBY, Lt. (jg) F. F., F. P. O., San Francisco, Calif.: 257 mollusks from the Philippines (170739, 171120).

BING, JOSEPH M., New York, N. Y. (See under Photo Utilities, Inc.)

BINGHAM FAMILY: (Through Mrs. E. S. Bartlett and Mrs. S. C. Crow, Detroit, Mich.) A silk taffeta dress worn by Mrs. Kinsley Bingham at the inaugural ball on the occasion of the first inauguration of President Lincoln (172192).

BISPHAM, Mrs. ELIZABETH G. CASEY. (See under Estate of Sophie P. Casey.)

BLACK, GEORGE, Oceanside, Calif.: 41 grasses from Brazil (172979).

BLACKWELDER, Dr. ELIOT, Stanford University, Calif.: Samples of silica debris, explosion debris, and quartz flour from Meteor Crater near Winslow, Ariz. (173374).

BLAKE, Mrs. DORIS H., Washington, D. C.: 349 beetles collected by the donor in Florida (173050). (See also under Robert V. Beals.)

BODINE, A. AUBREY, Baltimore, Md.: 71 pictorial photographs for special exhibition during November 1945 (171665, loan).

BOGEN, Lt. Comdr. EMIL, San Francisco, Calif.: 66 insects and centipedes; worms, 1 octopus; 2 snakes, 1 lizard, and 1 crocodile; 1 bat from Manus and 6 plants from the Admiralty Islands (171262, 171511, 171745).

BOGERT, CHARLES M. (See under American Museum of Natural History.)

BOHANNAN, Lt. C. T. R., Washington, D. C.: Melanesian pottery, bows and arrows, wooden bowls and drums, and other personal and household articles from northeast (Rai) coast of New Guinea, collected by donor in 1943 and 1944 (173384).

BOHART, Lt. G. E., Berkeley, Calif.: 2 paratypes of flies and 19 specimens of flies, including holotype, allotypes, and paratypes (173376, 173378). (See also under Navy Department, Medical Research Unit No. 2.)

BOHART, Lt. G. E., and GRESSITT, Lt. (jg) J. L., F. P. O., San Francisco, Calif.: Approximately 10,000 miscellaneous insects from the Island of Guam (171017). (See also under Navy Department, Medical Research Unit No. 2.)

BOHART, Lt. R. M., F. P. O., San Francisco, Calif.: 20 mosquitoes (171037). (See also under Navy Department, Medical Research Unit No. 2.)

BOTTIMER, L. J., College Park, Md.: 18 mollusks from College Park (172615); specimen of grass from New Jersey (172717).

BOURGEAUX, H. BRUCE, Baton Rouge, La.: 1 slide of aphid (172780).

BOURGEOIS, MARIE E., Mixcoac, D. F.: 4,240 mollusks from Mexico (170673, 170808, 171649).

BOURQUIN, Dr. FERNANDO, Buenos Aires, Argentina: 30 specimens of Lepidoptera from South America (170632, 171318).

BOWER, W. J. (See under Mrs. Mary J. Coles).

BRANSON, Prof. CARL C., Jackson, Ala.: Internal mold of an echinoderm from the Eocene of Alabama (171137); 14 echinoids from the Tertiary rocks of Alabama (171528); fossil crinoid (172124); approximately 180 gastropods from the Pennsylvanian and Permian of Tularosa, N. Mex., and 1 Jackson fossil crab from Choctaw County, Ala. (172383); 50 Upper Devonian brachiopods from the vicinity of Alamogordo, N. Mex. (173074).

BRASS, L. J. (See under Archbold Biological Station.)

BRAY, Mrs. HELEN POLLOCK, Arlington, Va.: Beaded bag with colorful flower and landscape pattern, representing an elaborate form of knitting fashionable in the early 1800's, which belonged to the donor's great-great-grandmother, who settled in Kittanning, Pa., in 1790 (170960).

BRECKINRIDGE, SOPHONISBA P., Chicago, Ill.: 2 silver beakers, middle 19th century (172945).

BRENNER PHOTO CO., Washington, D. C.: 1 Victor 16-mm. cine projector, very early model (170838); Eastman 1-A Kodak of 1898 (172066); 1 Conley shutter of about 1900 and 1 "Espi" exposure table (German) for daylight and flashlight (173390).

BRIMLEY, Dr. C. S., Raleigh, N. C. (Through Mrs. H. C. Simpson) 4 fishes: 2 specimens from Lake Waccamaw, N. C., and 2 from New Guinea (172142).

BRISCOE, Capt. M. S., Washington, D. C.: 42 reptiles and amphibians, 3 fishes, some mollusks, crabs, and insects, and millipedes from Harbel, Liberia (172135).

BRISTER, W. C. (See under Institute of Inter-American Affairs.)

BRITISH GOVERNMENT, *British Museum (Natural History)*, London, England: (Through Dr. G. E. Nixon) 177 specimens of Hymenoptera comprising 40 species of *Spathius* and *Aparteles* (145821, exchange); 21 ferns from Jamaica (156802); (through Dr. J. P. Harding) 10 parasitic copepods from British waters (171390, exchange).

Royal Botanic Gardens, Kew, Surrey, England: 219 plants, mostly from Colombia and Venezuela (171983, exchange).

BRITISH HONDURAS, *Conservator of Forests*, Belize, British Honduras: 100 specimens of the woods of British Honduras (172062).

BRODIE, D. A., Gore, Va.: 9 crinoids and 2 brachiopods from the Oriskany sandstone of the Devonian period in the vicinity of Gore (171342).

BROOKS, A. R. (See under Canadian Government, Department of Agriculture.)

BROOKS, Prof. FRANK G., Mount Vernon, Iowa: 77 fresh-water snails from Carroll Lake, Oneida County, Wis. (171032).

BROWN, Capt. FRANK R., A. P. O., New York, N. Y.: 7 birds skins from Tunisia and Italy (170845).

BROWN, Lt. KIMBROUGH S., A. P. O., New York, N. Y.: 14 German aircraft instruments of the period of World War II (171140).

BROWN, SAMUEL K., Eustis, Fla.: 7 snakes, 1 frog, from Lake County, Fla. (172737).

BROWNE, Corp. ROBERT B.: (Through Lt. George F. Shaw) A Japanese parachute captured in New Guinea during World War II (172429).

BRUNER, Dr. S. C., Santiago de las Vegas, Cuba: 2 flies from Cuba (171382); 6 specimens of Hemiptera (173204); 39 beetles from Cuba (173392).

BÜES, C., Quillabamba-La Convención, Peru.: 79 ferns from Peru (171311).

BURCH, JOHN Q., Los Angeles, Calif.: 1 marine mollusk from Newport Bay, Calif. (170717).

BURCH, Prof. PAUL R., Radford, Va.: 855 land and fresh-water shells and 4 insects from Virginia (163330, 170997).

BURCHAM, Capt. L. T., Berkeley, Calif.: 30 plants from Okinawa (170891).

BURKART, Dr. ARTURO. (See under Instituto de Botánica Darwinión.)

BURKE, Mrs. J. LEO, Richmond Heights, Mo.: 10 Marine Air Corps uniforms of the period of World War II (172109).

BURKS, Capt. BERNARD D., A. P. O., New York, N. Y.: 10 flies (166511).

BURT, Prof. CHARLES E., Topeka, Kans.: 3 cacti from Oklahoma (171852); (through Roger Conant) 1 soft-shelled turtle (paratype) from Topeka (172821).

BUSS, IRVEN O., Menomonie, Wis.: 5 bird skins (172358).

BUTLER UNIVERSITY, Indianapolis, Ind.: (Through Dr. J. E. Potzger) 8 grasses from Indiana (171393, exchange).

BUXTON, Prof. P. A. (See under London School of Hygiene and Tropical Medicine.)

CABANILLAS, Capt. J. M., Richmond, Va.: 3 earthenware vessels from a grave near the town of Concepción, Chiriqui District, Panama (171150, exchange); 5 crabs (171203).

CABRERA, Dr. ÁNGEL L. (See under Instituto del Museo.)

CALCUTTA, INDIA, ROYAL BOTANIC GARDEN, Sibpur, India; 224 plants collected in Burma by Jack McMillen (170772, exchange).

CALDWELL, Dr. J. S., Circleville, Ohio: 2 bugs (173065).

CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Calif.: 127 grasses from California (170980, 172578, 173274, exchange); (through John Thomas Howell) 25 grasses from California (171784, exchange); 7 grasses from Mexico (172514, exchange).

CALIFORNIA, UNIVERSITY OF, Berkeley, Calif.: (Through Dr. E. Gorton Linsley) A small collection of beetle larvae representing 4 species (163466); a collection of miscellaneous invertebrates (170553); 141 plants from the western United States (170754, exchange).

College of Agriculture, Davis, Calif.: (Through Dr. Alan A. Beetle) 1 grass from California (171950).

Scripps Institution of Oceanography, La Jolla, Calif.: (Through Dr. Carl L. Hubbs) 704 fishes, copepods, and other parasites from California and Lower California (172478); (through Dr. Carl L. Hubbs) 2 fishes from Dos Palmas Spring, Riverside County, Calif., caught by Elmer Berry (172681).

CALLAN, Dr. E. McC., Trinidad, B. W. I.: 5 insects in 2 species, 1 of them represented by 3 paratypes (170984).

CALLENDER, Prof. Sir GEOFFREY, Greenwich, England: (Through Leander McCormick-Goodhart) Sketch showing the design of the ensign of the

English East India Co. in 1776 (172648).

CANADIAN GOVERNMENT, *Department of Agriculture, Division of Entomology*, Ottawa, Ontario: (Through A. R. Brooks) 2 flies, paratypes (171496).

Department of Agriculture, Dominion Entomological Laboratory, Vernon, British Columbia: (Through Hugh B. Leech) 12 beetles, including holotype and paratype of 1 species and paratypes of 2 others (171880).

Department of Agriculture, Division of Botany, Ottawa, Ontario: (Through James H. Soper) 402 plants from southwestern Alberta (172296, exchange).

Department of Agriculture, Experiment Station, Lethbridge, Alberta: 14 grasses from Canada (172525).

Geological Survey, Ottawa, Ontario: (Through Dr. Alice E. Wilson) 10 casts of type specimens of brachiopods from Ordovician rocks in Canada (170468, exchange).

Department of Mines and Resources, National Museum of Canada, Ottawa, Ontario: 872 Canadian mosses (172253, exchange).

Royal Ontario Museum of Zoology, Toronto, Ontario: (Through Dr. F. A. Urquhart) 1 termite nest taken in Africa (171861).

CANBY, Lt. JOEL S., Denver, Colo.: Archeological material, presumably of Chamorro origin, from various sites on Tinian Island, Marianas Group, Pacific Ocean (171944).

CANFIELD FUND, Smithsonian Institution: 1 etched beryl, weight 201 grams, from Minas Gerais, Brazil (171801); collection of Franklin, N. J., minerals (172871); specimen of stibiotantalite from near Alto Legonha, Mozambique (172882); 3 specimens of sulphur from Sulphur, Nev. (172912); specimen of anhydrite from Franklin Furnace, N. J. (173265).

CARLANDER, KENNETH D., A. P. O., New York, N. Y.: Collection of miscellaneous insects, plants, mollusks, and reptiles taken by donor in the Panagarh area, about 30 miles east of Asansol, Bengal, India, in 1945 (171962).

CARLIN, Mrs. ESTELLE RANDALL (deceased), Fairfax County, Va.: (Through Mrs. Louise C. Westbrook) Blue-and-white, cotton-and-wool, double-woven coverlet, with geometric pattern, which was made in New York State about 1827 (172485).

CARLSON, Corp. ROBERT, San Francisco, Calif.: 178 mollusks from Treasury Island, North Solomons (171830).

CARLSTON, Lt. E. F. (See under Navy Department, Bureau of Ships.)

CARNEGIE MUSEUM, Pittsburgh, Pa.: (Through M. Graham Netting) 64 fishes collected in Arizona in 1945 by Dr. Arthur C. Twomey (171876).

CAROW, Lt. JOHN, Asheville, N. C.: 46 plants from Okinawa (172078).

CARPENTER, Lt. G. R., Washington, D. C.: 1 micrometer, 1 inch outside, marked "Victor S. M. (Sewing Machine) Company, Middletown, Connecticut, U. S. A.," used by the donor's father (170871).

CARPENTER, MATHILDA M., Washington, D. C.: 2 United States naval tokens, one made in 1904 and the other in 1912 (171980).

CARPINTER FAMILY. (See under Dr. Milton Carpinter Cobey.)

CARTWRIGHT, O. L., Clemson College, S. C.: 4 beetles (169504).

CASEY, ESTATE OF SOPHIE P., Washington, D. C.: (Through Mrs. Elizabeth G. Casey Bispham, Mrs. Sophie Heberton Weiss, and Mrs. Margarette Wyatt Pennoyer) Sword, uniform belt, and silver vase owned by Maj. Gen. Silas Casey, U. S. Volunteers, 2 photographs, 2 periodicals, 9 leaflets, and also 3 Indian bows and a prehistoric animal's tooth (171620).

CATHOLIC UNIVERSITY OF AMERICA, Washington, D. C.: (Through Father Hugh O'Neill) 25 mosses from Hispaniola (171827, exchange).

CAUSEY, Dr. O. R. (See under Institute of Inter-American Affairs.)

CEYLON, NATIONAL MUSEUMS OF, Peimadulla, Ceylon: (Through Dr. P. Deraniyagala) 8 rats from Ceylon (172207).

CHAMBERLAIN FUND, FRANCES LEA, Smithsonian Institution: 39 lots of land shells of the Lord Calvert collection (160196); collection of alexandrites from Russia (173202).

CHAMBERS, Miss C. M., Washington, D. C.: 1 cedar waxwing (173218).

CHANDLER, B. A., Westmoreland Hills, Md.: 3 cultivated plants (172680).

CHAPIN, Dr. E. A., Washington, D. C.: 2 spiders, type and paratype, from Florida (170718); approximately 500 fresh-water mollusks from the Rappahannock River, Va. (170977); 40 miscellaneous insects and spiders and a small collection of mollusks taken from the Rappahannock River near Remington, Va. (171052); about 150 spiders and insects and a collection of mollusks made at Hope House, Easton, Talbot County, Md. (171349).

CHARDON, Dr. CARLOS E. (See under University of Puerto Rico, Institute of Tropical Agriculture.)

CHASE, Mrs. AGNES, Washington, D. C.: 89 grasses (170753, 172252); 7 grasses collected in Venezuela by Miss V. E. Rudd (171117).

CHASE, VIRGINIUS H., Peoria Heights, Ill.: 500 specimens of fossil Foraminifera from the Pennsylvanian of Peoria County, Ill. (171138); 18 plants from Maryland (172016); 130 plants, mostly from Illinois (172459); 200 mosses from Missouri (173220).

CHIANG, HUAI-CHANG, St. Paul, Minn.: A collection of insects, parasites of fall cankerworm (172462).

CHICAGO NATURAL HISTORY MUSEUM, Chicago, Ill.: 669 plants collected in Guatemala by Dr. Julian A. Steyermark; 54 plants from Adak Island, Alaska, and 1,790 plants, mainly from Guatemala (170733, 171042, 172254, exchange).

CHICOPEE SALES CORP., New York, N. Y.: 5 study samples of unwoven cotton sheeting, 4 laminated "Masslinn" of different types, and 5 "Bonlinn" of bleached absorbent cotton in stiff, heavy weight (172161, 172332).

CHOU, Dr. RUTH CHEN-YING, Washington, D. C.: 10 plants from Virginia (170988).

CILLEY, BEN, Lake Worth, Fla.: Pair of pistols owned during the Revolutionary War by Col. Joseph Cilley, First New Hampshire Regiment (163084).

CLARK, CLARENCE F., St. Marys, Ohio: 18 shrimps from Ohio (170946).

CLARK, Mrs. EFFIE M., Yuba City, Calif.: About 1,070 fossil shells (170621).

CLARK, R. L., Burke, Va.: 1 shrew collected by donor near Burke (172059).

CLEMENS, G. W. (See under Historical Society of Berks County.)

CLEMENT, Brother, Santiago, Cuba: 41 plants from Cuba (171144).

CLEVELAND MUSEUM OF NATURAL HISTORY, Cleveland, Ohio: 17 ferns (103731).

CLOVER, Dr. ELZADA U., Madison, Wis.: 7 grasses from Arizona (171282).

COBEY, Dr. MILTON CARPINTER, Washington, D. C.: (Through the Carpinter Family) 1 wooden lemon squeezer and a porcelain feeding cup, representing types in use 50 years ago (170790).

COCKERELL, Prof. T. D. A., Boulder, Colo.: 29 bees, representing 24 species and varieties, of which 7 are represented by types and 1 by cotype (171740).

COCKERILLE, EDITH, Washington, D. C.: 2 surgical instruments used in the practice of dental surgery by Dr. S. J. Cockerille, Washington, D. C. (170741).

COE, ERNEST F., Miami, Fla.: 3 mollusks from Florida (170769).

COE, Prof. WESLEY R., La Jolla, Calif.: Type and 12 paratypes of mollusks (172385).

COLBURN, BURNHAM S., Biltmore, N. C.: 149 archeological objects from the Cherokee area of North Carolina and Tennessee, together with a few from other States (172293).

COLEGIO DE LA SALLE, Cartegena, Colombia: (Through Brother Hilarino Ángel) 15 plants from Colombia (161823).

COLES, Mrs. MARY J., Nashville, Tenn.: (Through W. J. Bower) 1 egg mass of mollusk from St. Petersburg, Fla. (170715).

COLLOM, Mrs. ROSE E. (See under U. S. Department of the Interior, National Park Service.)

COLOMBIAN GOVERNMENT, *Comisión de Botánica de la Secretaría de Agricultura*, Cali, Colombia: 532 plants from Colombia (171624, 171642, 173007); 12 plants (legumes) (171868, exchange).

COLORADO COLLEGE, Colorado Springs, Colo.: 84 plants from Colorado (173275, exchange).

CONANT, ROGER, Philadelphia, Pa.: 21 turtles from Delaware and Maryland (170006). (See also under Prof. Charles E. Burt.)

CONSERVATOR OF FORESTS. (See under British Honduras.)

CONTRERAS, Prof. FRANCISCO. (See under Instituto Geológico.)

CONVERSE, Mrs. LILY S., New York, N. Y.: 49 lithographs by the lender for special exhibition, April 29 through May 26, 1946 (172099, loan); 2 lithographs, "Cottonwood Grove" and "Sunflowers" (173391).

CONWELL, L. A., F. P. O., San Francisco, Calif.: A cigar box full of miscellaneous specimens from New Guinea (170751).

COOK, W. P., San Diego, Calif.: 17 mollusks from San Martín Island, Mexico (172428).

COOLEY, Dr. R. A. (See under Federal Security Agency, U. S. Public Health Service, Rocky Mountain Laboratory.)

COOLIDGE, Mrs. CALVIN, Northampton, Mass.: (Through Mrs. H. W. Underwood) Feather fan, pearl necklace, and lace handkerchief used by donor in the White House (171549).

COOPER, Dr. BYRON N. Charlottesville, Va.: One-half of a fossil brachiopod from the Ordovician of southwestern Virginia (170655, exchange); approximately 750 fossils, the bulk of the collection from the Appalachians of Virginia (173216).

COOPER, Dr. G. ARTHUR, Washington, D. C.: 150 miscellaneous insects, 1,500+ mollusks, 25 crustaceans, 20 turbelarians, and 4 leaches, collected in Texas by donor (170935); 47 mollusks from Virginia (171790). (See also under Walcott Fund.)

COPELAND, Dr. E. B., Berkeley, Calif.: 13 ferns from the Philippine Islands (170985, 172887, exchange).

COPELAND, Lt. ROBERT A., F. P. O., San Francisco, Calif.: 15 plants from the Philippine Islands (170917).

CORNELL UNIVERSITY, Ithaca, N. Y.: (Through Dr. Henry Dietrich) 2 beetles collected in Binghamton, N. Y., from furniture made in Mexico (171406); *Department of Entomology:* (Through Dwight A. Webster) Approximately 60 amphipods (172095).

COTTON TEXTILE INSTITUTE, New York, N. Y.: 27 specimens of cotton textiles produced by American manufacturers for the spring and summer of 1946 (172431).

COTTRELL, R. E., Houston, Pa.: 1 board specimen of the Bullace plum tree grown in Washington County, Pa. (172523); 14 woods from Florida and Pennsylvania (173270).

COX, Dr. GEORGE H., St. Petersburg, Fla.: 7 mollusks from St. Petersburg (172528).

CRAASER, Dr. E. P., Hempstead, N. Y.: 1 snapping shrimp (171091).

CRESPO, Ing. GUILLERMO, La Paz, Bolivia: 25–30 miscellaneous insects from Bolivia (170878).

CROCKETT, Dr. R. L., Oneida, N. Y.: 8 plants (171756).

CROSS, Dr. and Mrs. WHITMAN, Chevy Chase, Md.: A collection of American and European rocks and minerals; 1 Chilkat blanket and 6 Navaho blankets (170706).

CROW, Mrs. S. C., Detroit, Mich. (See under the Bingham Family.)

CROWELL, Dr. SEARS, Oxford, Ohio: 8 specimens, including type of a new species of sea anemone (171206).

CROZIER, Dr. BRUCE U., Stillwater, Okla.: 12 slides of cotype specimens of helminths (172872).

CUATRECASAS, Dr. J., Bogotá, Columbia: 158 plants from Colombia; 32 photographs of plants (162978, 171867, exchange). (See also under Colombian Government, Comisión de Botánica.)

CUEVA, JUAN IVAN, Loja, Ecuador: (Through Capt. Albert E. Wolff) Hammered copper ax, with cut-out figures, from Loja, Province of Loja, Ecuador (171153).

CULBERTSON, Prof. A. E., Fresno, Calif.: 9 mollusks from California (173037).

CURRY, JOHN STEUART, New York, N. Y.: 15 lithographs and 8 drawings for special exhibition during September 1945 (171234 loan).

CURTIS, CHARLES B., Litchfield, Conn.: Surveying instrument for measuring horizontal angles, believed by donor to have been used by either Andrew Ellicott or by his son-in-law, David Bates Douglass (171316, loan).

CURTIS, Dr. JOHN T., Jr., Madison, Wis.: 97 plants from Haiti (171087), 171097).

CURTIS, Dr. JOSIAH (deceased): 8 archeological specimens lent to the Smithsonian Institution for display at the Centennial Exhibition, Philadelphia, 1876 (171558).

CURTISS, ANTHONY, Port-au-Prince, Haiti: A collection of reptiles, amphibians, fishes, marine invertebrates, mollusks, and insects from Haiti (170705, 172237).

CUTLER, Dr. HUGH C. (See under Rubber Development Corp.)

CYPERT, Sgt. EUGENE. (See under Lt. Theodore Downs.)

DAHLGREEN, CHARLES W., Oak Park, Ill.: 14 drypoints and etchings by Charles W. Dahlgreen (170839); 136 etchings and drypoints and 1 block print in color (171530).

DAMMERMAN, Dr. K. N., Buitenzorg, Java: 29 vials of isopods from Indian Archipelago (94280); 15 isopods from Lake Klakah, Java (100400).

DAMPF, Dr. ALFONSO, Mexico, D. F.: 1 white-throated wood rat collected at Bocas, San Luis Potosí (171475).

DANIEL, Brother, Medellín, Colombia: 138 plants from Colombia (170729, 172978).

DANIELS, AL, Weiser, Idaho: A fossil egg from Hot Creek Valley, Sioux County, Nebr. (171539).

DANSKE ARKTISKE STATION, Disko, Greenland: 165 plants from Greenland (171647, exchange).

DARROW, Prof. ROBERT A. (See under University of Arizona.)

D'ASCENZO, NICOLA GOODWIN, Bala-Cynwyd, Pa.: 1 specimen of hambergite from Madagascar, weight 0.87 carats (171078); 1 moss agate from India (171641, exchange); sapphire weighing 9.47 carats (172473).

DASHIELL, MARY ELLEN, Washington, D. C.: Lace-edged cotton cambric bolster sham with vine pattern embroidered in fancy knot stitch giving the effect of braiding, which was made about 1867 by the donor's grandmoth-

er, Mrs. Ellen Maria (Hamilton) Dashiell, Port Tobacco, Md. (171051); 1 Stiegel type paneled flip glass, owned originally by Charity Jenkins Boone, great-great-grandmother of the donor (171326).

DAVIS, Maj. H. A. (See under War Department, Army Medical Museum.)

DAVIS, HELEN EDITH, Weatherford, Okla.: (Through Prof. R. Chester Hughes) 7 slides of type specimen of helminth (170712).

DAVIS, Mrs. P. H., Washington, D. C.: A collection of art metal work from Javanese, Sumatran, and other East Asiatic peoples (171560).

DAVIS, ROBERT N., Bolling Field, D. C.: An original radar camera, assembled in North Africa and used in the Italian campaign (172914).

DAYTON, WILLIAM A., Arlington, Va.: 4 plants (170814).

DEADERICK, Mrs. W. H., Hot Springs, Ark.: Approximately 3,500 slides of Cretaceous Foraminifera from Arkansas, plus 327 samples of concentrates, collected by the late Prof. W. H. Deaderick (170108).

DE BEUGHEM, Vicomtesse, Washington, D. C.: Collection of 10 pieces of Belgian needlepoint and bobbin-made laces assembled by Mrs. Brand Whitlock, wife of the Ambassador to Belgium during World War I, and presented by her to the donor (172208).

DE BOURBON-CONDE, Capt. BRUCE A., A. P. O., New York, N. Y.: 53 German postage stamps (170920).

DECKER, Dr. C. E., Norman, Okla.: 50 Paleozoic invertebrate fossils, including 25 type specimens (173343, exchange).

DEE, Mrs. LILIAN MAXIM, Landing, N. J.: Russian cup the design of which commemorates the coronation of Tsar Nicholas II and Tsarina Alexandra in 1896 (171003).

DEIGNAN, H. G., Washington, D. C.: 2 mollusks from Fairfax County, Va. (171548); 7 bird skins from Ceylon (172160); 3 plants from Virginia (172453).

DENCE, WILFORD A. (See under Roosevelt Wildlife Forest Experiment Station.)

DENTON, Dr. J. FRED, Augusta, Ga.: 1 egg of a cowbird (170840); 30 types and paratypes of helminths (172519).

DE OLIVEIRA, Dr. A. C. ESTEVAO, Ceará, Brazil: 5 helminths (172240).

DERANIYAGALA, Dr. P., Pelmadulla, Ceylon. (See under National Museums of Ceylon.)

DESCH, PAUL, Washington, D. C.: 7 cowries (4 species) from Biak Island, Dutch New Guinea (172249).

DETHLEFSEN, E. S., San Francisco, Calif.: 1 beetle (paratype) (173171).

DETWILER, A. B., Arlington, Va.: 1 plant from Virginia (170726).

DICKSON, Mrs. H. R. P., Kuwait, Arabia: 7 small mammals from Kuwait (165569, collected for the Museum).

DIETRICH, Dr. HENRY. (See under Cornell University.)

DINGMON, JOHN, Lake Butler, Fla.: A pocketbook of brown leather lined with a thin, light leather split, made before 1850, by Cobb & Sparks, Lancaster, Mass. (171481).

DISTRICT OF COLUMBIA PUBLIC HEALTH ENGINEERING DEPARTMENT, Washington, D. C.: 5 rats (173349).

DIVEN, Mrs. C. A., Arlington, Va.: Brown cloth coat of latter part of 19th century (172474).

DIX, W. L., Morrisville, Pa.: 6 grasses from Pennsylvania (171689).

DIXON, JOSEPH S. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

DODGE, HAROLD R., Macon, Ga.: A small collection of flies (170511); 19 vials of mosquito and *Dixa* larvae from Georgia (170776); collection of mosquito material comprising 7 vials of mosquito larvae and 6 adults of one species (171207).

DODGE, HENRY, Scarsdale, N. Y.: 2 mollusks from Clearwater Bay, Fla. (167167).

DOLE, Mrs. SARAH PROCTOR, New York, N. Y., and JOHN L. PROCTOR, Washington, D. C.: Naval officer's sword of the Civil War and an Army belt of the same period (171592).

DONAHUE, RALPH J., F. P. O., San Francisco, Calif.: Small collection of insects (170976); a collection of insects, 6 crabs, 5 hermit crabs, 1 dried sponge, earthworms, 7 snakes and 5 frogs, mollusks, fishes, 1 plant and 4 fruits, all from Okinawa (171626, 172086).

DOS PASSOS, CYRIL F., New York, N. Y.: 2 moths, both paratypes (170659).

DOSCHER, JOHN W., Saddle River, N. J.: 37 pictorial photographs for exhibition during February (172258, loan).

DOUGHERTY, Dr. ELLSWORTH C., Berkeley, Calif.: Holotype and allotype of nematode (new species) (171810).

DOUGLAS, Dr. JAMES R., Davis, Calif.. 21 cladocerans from California (172690).

DOWNS, Lt. THEODORE, and Sgt. EUGENE CYPERT, A. P. O., San Francisco,

Calif.: (Through Capt. C. Brooke Worth) 1 mouse; 25 ostracods; miscellaneous insects, spiders, and myriapods; mollusks; fishes; reptiles and their eggs, all from Tinian, Marianas Islands (171291, 171521).

DRABBLE, RICHARD W., Palmer, Alaska: A small collection of insects from the Aleutian Islands (170952).

DRAKE, Dr. CARL J., Ames, Iowa: 7 paratypes of bugs (2 species) (171069, exchange).

DRYANDER, Mrs. EDITH, Cali, Colombia: 5 plants from Colombia (172531).

EAKIN, Dr. RICHARD M., Berkeley, Calif. (See under U. S. Department of the Interior, U. S. Fish and Wildlife Service.)

EARNEST, Mrs. G. E., West Lanham Hills, Md.: 1 garden spider collected by donor in West Lanham Hills (171083).

EAST AFRICAN AGRICULTURAL RESEARCH INSTITUTE, Amana, Tanganyika Territory: 50 plants from East Africa (172398, exchange).

EGGLESTON, O. H., Stockton, Calif.: Portfolio of articles and photographs: "Benjamin Holt Inventor," giving his biography and an outline of the improvements he made in the Combined Harvester, Caterpillar Track, and Caterpillar Tractor (171384).

EDDY, ARTHUR A., Ware, Mass.: 1 motion-picture camera and projector, 1895; 7 glass plates (172401, loan).

EDMONDSON, Dr. C. H., Honolulu, Hawaii: 1 shipworm from Hawaii (172494).

ELIAS, Prof. M. K., Lincoln, Nebr.: A supposed new fossil alga from the Upper Permian rocks of Texas (171194); 20 Permian gastropods from the Carlsbad limestone, New Mexico (172427).

ELLIOTT, Lt. Col. E. W., Washington, D. C.: 8 plants from Galápagos Islands (171795); 9 plants from Japan (172828).

EMLEN, Dr. JOHN T., Baltimore, Md.: 1 black rat (173039).

ERICSON, MILDRED J., Arlington, Va.: 1 mollusk (171694).

ERLANSON, CARL O., Washington, D. C.: 1,800 plants from Panama (170183, collected for the Museum).

ESSEX, Mrs. ROBERT W. (See under Charles R. Schwarz.)

ESTAÇÃO AGRONOMICA NACIONAL, Sacavém, Portugal: 153 plants (172456, exchange).

ESTACIÓN EXPERIMENTAL AGRONÓMICA, Santiago de las Vegas, Cuba: 195 Cuban plants in exchange and 218 as a gift (170709 gift-exchange); (through Ing. Julian Acuna) 27 Cuban plants (172019).

FAGE, Dr. LOUIS. (See under Museum National d'Histoire Naturelle.)

FAIRCHILD, Capt. D. G., Washington, D. C.: 8 mollusks from Canon del Pato, 2,500 feet elevation above Chimbote, Peru (171324); 7 specimens of 7 species of flies, of which 6 specimens are paratypes (171376).

FARNER, Lt. D. S., Washington, D. C.: 3 reptiles and 4 amphibians from Orlando, Fla., (171359).

FARWELL, Capt. BYRON E., Kirkwood, Mo.: Collection of Daunian ware from graves near the ruins of Herdonia, about 20 km. south of Foggia, Province of Apulia, Italy, exhumed by donor while on military duty in Italy (170841, 171863).

FARWIG, R. L., Washington, D. C.: An Eastman Kodak, with fixed focus enlarger for amateur use, 1910 (172683).

FASSETT, Prof. NORMAN C., Madison, Wis.: 2 grasses from Colombia (171283). (See also under University of Wisconsin.)

FAST, FRANCIS A., New York, N. Y.: 12 finger paintings by donor (172689).

FATTIG, Prof. P. W., Atlanta, Ga.: 37 beetles, including 13 paratypes (172649).

FEDERAL SECURITY AGENCY, *U. S. Office of Education*, Washington, D. C.: 80 models of aircraft (scale 1:72) used by the U. S. Navy in recognition training during World War II, which were produced in the public schools of this country under the supervision of the Industrial Arts and Vocational Departments (172400).

U. S. Public Health Service, National Institute of Health, Bethesda, Md.: 10 mollusks from California and Florida (171136); 34 freshwater shells from Louisiana and Texas (171450).

U. S. Public Health Service, Rocky Mountain Laboratory, Hamilton, Mont.: (Through Dr. R. A. Cooley) 1 tick; 4 paratypes of insects (171079, 171378); (through Maj. W. L. Jellison) skin and skull of a raccoon; 20 insects (172165, 172245); 3 ticks, new species, including a paratype female and two male paratypes (172616); 1 meadow mouse (172659).

U. S. Public Health Service, New York, N. Y.: (Through Ralph C. Barnes) 19 specimens of mosquito material (171940).

U. S. Public Health Service, San Juan, Puerto Rico: (Through Harry D. Pratt) 5 specimens of mosquito material from Puerto Rico and the Virgin Islands; 6 specimens of mos-

quito material; 19 slides of mosquito material; representing 7 species (172714, 172992, 173379); (through Capt. G. A. Thompson) 181 specimens of mosquito material (171674);

U. S. Public Health Service, Division of Nurse Education, Washington, D. C.: Cadet nurse uniform of World War II (172015). (See also under U. S. A. Typhus Commission.)

FELLOWS, PERRY A. (See under Foreign Economic Administration.)

FENDER, KENNETH M., McMinnville, Oreg.: 11 paratypes of beetles (172392).

FENNAH, R. G., Castries, St. Lucia, B. W. I.: 1 insect holotype (171267).

FERGUSON, Capt. M. S., Princeton, N. J.: 195 mollusks from Mindanao, Philippines (171275).

FERRIS, Mrs. ROXANA S. (See under Stanford University.)

FESSENDEN, Dr. GEORGE R., Washington, D. C.: 2 plants (*Viola*) from North Dakota (170730).

FIELD, W. D., Washington, D. C.: 981 plants from Okinawa (172216).

FINDLAY LABORATORY, CARLOS, Bogota, Colombia. (See under Rockefeller Foundation.)

FISH, Lt. Comdr. CHARLES J., Washington, D. C.: 40 crustaceans, 62 mollusks, 1 fish, and 3 echinoderms from the region of Casablanca, Morocco (170591).

FISHER, GEORGE L., Houston, Tex.: 102 plants from Mexico (171306).

FITCH, J. T., Royal Oak, Mich.: 2 rats and 4 birds from the Philippines (172471).

FITZGERALD, Dr. J. O., Jr., Richmond, Va.: 60 pictorial photographs for exhibition during October 1945 (171348, loan); 6 pictorial photographs for the permanent collection (171949).

FLAGG, ARTHUR L., Phoenix, Ariz.: Specimen of rossasite (172125).

FLEMING, Col. WILLIAM D., Camp Carson, Colo.: 14 vials of diatom material from various Pacific Island areas (171891).

FLIPPO, JOSEPH, Fort Republic, Md.: 1 horseshoe crab, encrusted with Bryozoa (168581, exchange).

FLORIDA STATE MUSEUM, Gainesville, Fla.: 73 specimens of mollusks (169347).

FLORIDA, UNIVERSITY OF, *Department of Biology*, Gainesville, Fla.: (Through Margaret C. Johnson) 5 slides representing 4 species of sponges, including a portion of one type (171555).

FORBES, HELENA M. L. (See under South Africa Department of Agriculture.)

FORD, EDWARD R., Newaygo, Mich.: 1 set of eggs of Baltimore oriole (including 1 of the cowbird and 3 of the oriole) and 1 cowbird egg from a chipping sparrow's nest (170912).

FORD, Rev. PAUL D., Sunbury, Pa.: 2 pieces of hydrocoral from New Providence Island (170435).

FOREIGN ECONOMIC ADMINISTRATION, Washington, D. C.: (Through Perry A. Fellows) 31 pinned named specimens in 15 species and 12 slides of mosquito material from Ethiopia (170978); 5 specimens of calcite from Izacas mine, Municipio La Palma, Cundinamarca, Colombia (171343); 270 plants from Ecuador, collected by Dr. William C. Steere (171797); (Through Prof. Ira L. Wiggins) 49 plants from Ecuador (172987).

FORSYTH, Lt. R. L., Oak Park, Ill.: 21 mollusks from Makin Island, Gilbert Islands (170778).

FOSHAG, Dr. W. F., Washington, D. C.: 2,500 miscellaneous insects, 16 fishes, 600 mollusks, 10 reptiles and batrachians, and 62 crustaceans and 1 worm, collected in the states of Morelos, México, Guerrero, Michoacán, Mexico, 1942–45 (171623): 1 plant from Mexico (172298); archeological material purchased from natives in various parts of Mexico (172755). (See also under Smithsonian Institution, National Museum.)

FOX, Lt. ADRIAN C., Leeds, N. Dak.: A collection of mammals, reptiles, mollusks, marine invertebrates, and insects from Banika Island, Russell Islands, British Solomon Islands (170608), fishes, echinoderms, mollusks, crustaceans, reptiles, and insects from the Philippines and Hawaii (170981).

FOX, PORTLAND P., Welch Cove, N. C.: 35 Mississippian fossils from lower Mississippian limestone at the Kentucky Dam on the lower Tennessee River near Gilbertsville, Ky. (171116).

FRAMBURG & Co., H. A., Chicago, Ill.: 37 models of United States, French, and British naval vessels of World War II (171428).

FRANCLEMONT, Dr. JOHN G., Ithaca, N. Y.: 41 specimens of Hymenoptera from the Solomon Islands, Philippine Islands, and North America (173172).

FRASCHE, DEAN F., Washington, D. C.: 30 specimens of uranium minerals from "Union Miniere du Haut Katanga," Belgian Congo (171451).

FRASER, Rt. Rev. Msgr. SAMUEL V., Aurora, Kans.: 7 plants (171999).

FREDERICK, ESTATE OF MARY LOUIS: (Through Isabella C. Wells) Collec-

tion of knives and swords from Java and India and pipes from Japan obtained by Miss Frederick in these countries between 1910 and 1912 (172617).

FREYER, THEODORE H., Alexandria, Va.: 16 Japanese net floats of blown glass, picked up on the coast of Oahu, T. H. (173381).

FROESCHNER, Dr. RICHARD C., St. Louis, Mo.: 2 bugs, type and allotype (170689).

FROST, C. A., Framingham, Mass.: a collection of miscellaneous insects (172666).

GABRIEL, Mrs. E. C., Montour Falls, N. Y.: An ambrotype on colored glass (172575).

GABRIELSON, Dr. IRA N. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

GADDIS, Prof. LELLA R., West Lafayette, Ind.: Specimen of vegetable-dyed, hand-woven carpeting, homespun from hemp and wool by the donor's grandmother and aunt (172484).

GALINDO, PEDOR, Panama, Panama: 11 specimens of mosquito material comprising 5 adults and 6 slides (171038).

GARRETT, A. O., Salt Lake City, Utah: 2 plants from Utah (172798).

GARSIDE, CHARLES. (See under Estate of Robert Underwood Johnson.)

GENERAL MOTORS CORP., *Inland Manufacturing Division*, Dayton, Ohio: United States carbine, calibre 0.30, type M2, number Xd-49, with 30-round magazine and bayonet (171054).

GENTRY, HOWARD SCOTT, Ann Arbor, Mich.: 22 plants from Mexico (170692, 172163).

GEOPHYSICAL INSTRUMENT CO., Arlington, Va.: A Geiger counter (171076), loan).

GETZ, DOROTHY, Baltimore, Md.: 2 marine shells from Panama (171858).

GILKEY, Dr. HELEN M. (See under Oregon State College.)

GILLOGLY, L. R., Sacramento, Calif.: 6 beetles, comprising 4 paratypes and 2 other specimens (172891).

GILMORE, Dr. RAYMOND M., Washington, D. C.: 5 small rodents from south Ecuador (171692).

GOLDBERG, LOUIS, Norwich, Conn.: 6 pairs of old ice skates (170755).

GONZÁLES G., ALEJANDRO, Tapijulapa, Tabasco: 44 specimens of dried fish from the sulphurous grotto near the town of Tapijulapa, Tabasco, Mexico, collected by the donor in April 1945 (170904).

GOODCHILD, Dr. C. G., Springfield, Mo.: 14 fresh-water clams from Massachusetts (171157).

GOODLOE, Lt. Comdr. GREEN CLAY (deceased): (Through Dr. A. B. Bennett, Washington, D. C.) Model of the U. S. destroyer *Alden* (172475).

GOTTSCHALK, Dr. CARL W., Salem, Va.: 1 aberrant butterfly collected in Salem (170658).

GOULD, Prof. FRANK W. (See under University of Arizona.)

GOULD, H. P., Washington, D. C.: A collection of miscellaneous personal and household articles of the period 1830–70, used by members of the Gould family, and a Croix de Guerre medal (171233).

GRAF, J. E. (See under Smithsonian Institution, National Museum.)

GRASSL, CARL O. (See under U. S. Department of Agriculture, Bureau of Plant Industry, Soils, and Agricultural Engineering.)

GRAY, Rev. JOHN, Charlottesville, Va.: (Through Dr. J. J. Murray) 1 bird skin (171579).

GREENE, FRANK C., Kansas City, Mo.: A shell from Missouri (172564).

GREENE, GEORGE M., Harrisburg, Pa.: 36 specimens of flies and Hymenoptera collected at Linglestown, Pa. (172901).

GREGER, Dr. D. K., Fulton, Mo.: About 170 Upper Devonian fossils from Missouri (171344, 171703); about 350 assorted Mississippian invertebrates from Missouri (171900, exchange).

GREGG, Dr. ROBERT E., Boulder, Colo.: 18 ants (171727, exchange).

GREGORY, VERA, Oklahoma City, Okla.: 2 seamless, double-woven, jacquard coverlets (171995).

GRESSITT, Dr. J. LINSLEY, San Francisco, Calif.; 15 mosquitoes from Japan (172480); 36 plants from Guam (172571). (See also under Lt. G. E. Bohart and Navy Department, Medical Research Unit No. 2.)

GRIFFITH, G. H. (See under Treasury Department, Bureau of Customs.)

GRIPON, Madame PAUL E. H., Charlottesville, Va.: Photograph of Diplome d'Honneur awarded to the donor by the International Jury of Awards of the Exposition Coloniale Internationale, Paris, 1931, for her bronze bust of General Gorgas (171910).

GROBER, Capt. SAM, A. P. O., San Francisco, Calif.: 9 plants from Japan (172382).

GULLEY, M. G. (See under Heirs of Rose Jones.)

GUNCKEL, HUGO, Temuco, Chile: (Through George Tays) 1 plant from Chile (170915).

GUNTER, GORDON, Rockport, Tex.: Type of new flatfish from 40 miles south of Port Aransas, Tex. (172255); 3 fishes from off Galveston, Tex. (172300); 1 type specimen of fish. (173114).

GURNEY, Dr. A. B., Washington, D. C.: 36 specimens of marine shells from Subic Bay, Luzon, Philippine Islands (173279).

HAAS, Dr. FLORA A., Sorrento, Fla.: 14 plants from Arkansas (171379).

HAERTEL, Dr. M. H., Falls Church, Va.: 2 wood specimens from Cuba (171143).

HALE, Dr. HERBERT M. (See under South Australian Museum.)

HALSEY, Admiral WILLIAM F., Washington, D. C.; Altar stave of carved wood, presented to donor by a native chief in New Caledonia (172618).

HANNA, WILSON C., Colton, Calif.: 1 set of eggs and nest and 1 skin of rufous-necked sandpiper (171586, exchange); 1 set of eggs of the red-spotted bluethroat (172306 exchange).

HANSEN, Lt. MERLE F., and Lt. HOWARD A. BERN, A. P. O., San Francisco, Calif.: 46 fresh-water snails from Dagami, Leyte, Philippines (170674).

HANSON, Dr. JOHN F., Newtonville, Mass.: 2 insects, paratypes (171313).

HANSON, Capt. JOHN J., Indiantown Gap Military Reservation, Pa.: Model gasoline aircraft engine, "Scrapper," marked with serial No. 930 (170756, loan).

HARDCASTLE, Dr. A. BASCOM, Hyattsville, Md.: 7 vials of miscellaneous insects and centipedes, a collection of ants, and a few crustaceans from Okinawa (172995).

HARDING, Dr. J. P. (See under British Museum (Natural History).)

HARLOW, JAMES R., New Orleans, La.: 101 plants from Panama (171596).

HARMSTON, FRED C., Salt Lake City, Utah: 22 flies (172582).

HARNED, Prof. R. W., Washington, D. C.: 2 isopods (99473).

HARPER, Dr. FRANCIS, Swarthmore, Pa.: 48 vials of insects (171277); small collection of ectoparasites (172048).

HARPER, Dr. R. M., University, Ala.: 53 plants from Alabama (173356).

HARRINGTON, W. C., Taft, Calif.: 173 marine shells and 1 crab from Caroline Islands (172940).

HARRIS, JOHN E., Washington, D. C.: 1 centipede from China, discovered in mail sack (170750).

HARRIS, Mrs. HELEN M., Washington, D. C.: Knife and sheath from the Gurkhas of Nepal, collected by the husband of donor while in military service in India (172965).

HARRISON, Prof. B. F. Provo, Utah: 65 plants chiefly from Utah (173188).

HARRY, H. WH., F. P. O., San Francisco, Calif.: A piece of snail tissue containing immature nematodes (171578).

HART, Maj. THOMAS A., Washington, D. C.: 48 mosquitoes, representing 15 species, from Goodenough Island, Papua (170863).

HARVARD UNIVERSITY, *Arnold Arboretum*, Jamaica Plain, Mass.: (Through Dr. A. C. Smith) 10 grasses from Fiji (171516, exchange); 142 plants from Colombia and Fiji (171671, 172274, 172275, 172276, 172277, exchange).

Botanical Museum, Cambridge, Mass.: (Through Dr. L. O. Williams) 2 orchids from Mexico and Bolivia (172655, exchange).

Department of Mineralogy, Cambridge, Mass.: Specimen of sampleite from Chuquicamata, Chile (172647, exchange).

Gray Herbarium, Cambridge, Mass.: 1 plant from Texas (170916); 2 illustrations of North American ferns (171454); 2 ferns from Argentina (171476, 172889); 951 plants (171498); 45 ferns, mostly from New England (171561, 172130); a fern from Argentina (172889). Exchange. (Through Dr. Lyman B. Smith) 4 plants from Colombia, collected by Helen Schiefer (172670, exchange).

Museum of Comparative Zoology, Cambridge, Mass.: (Through Lt. R. Tucker Abbott) 16 paratypes of mollusks from the Philippines (173215); (through Dr. Joseph Bequaert) 3 mollusks (171036); 3 mollusks from Tamaulipas, Mexico (169800); 9 lizards from Honduras (170911); 1 beetle (172450); 3 ants (173111); 1 beetle (paratype) (173173); 6 cotypes of 2 species of ants, 5 beetles paratypes, 1 cotype specimen of ant (171196, 172126, 172827). Exchange.

HARVEY, Dr. E. W. (See under Oregon State College.)

HASBROUCK, Dr. E. M., Washington, D. C.: 1 American merganser, received in the flesh (172482); 2 geese (172687, exchange).

HASKIN, J. R., Babson Park, Fla.: 1 beetle, collected in Inverness, Fla. (171697).

HAUGHT, OSCAR, Littleton, W. Va.: 1,469 plants and 1,840 shells from Colombia (171347, 171643).

HAVEN, ROBERT C. (See under Dr. Carl L. Hubbs.)

HAYDEN, Hon. CARL, Washington, D. C.: 1 specimen of fossil coniferous wood

from the boundary of the Navajo Indian Reservation north of Holbrook, Ariz. (170656).

HAYS, DORIS W. (See under U. S. Department of Agriculture, Forest Service.)

HEDGPETH, JOEL W., Rockport, Tex.: 6 amphipods (170763); 1 sea anemone and 1 spider crab (171439); 1 nudibranch from Port Aransas, Tex. (173049).

HELD, Pfc. ED. (See under Borys Malkin.)

HELMS, HENRY, Arlington, Va.: 1 red fox taken near Leesburg, Va. (171982).

HENBEST, Dr. L. G., Washington, D. C.: 200 beetles collected on Capulin Volcano, south of Raton, N. Mex. (172533); 62 mollusks from Utah (172910).

HERALD, Capt. EARL S., Orlando, Fla.: 11 fishes from Florida (171870, 172454); (through Dr. Carl L. Hubbs) 11 fishes from Miami Springs, Seminole County, Fla. (172577).

HERMANN, Dr. J. F., Greenbelt, Md.: 4 plants from Maryland (172457).

HERRE, Dr. ALBERT W. (See under Stanford University, Natural History Museum.)

HESS, FRANK L., Washington, D. C.: 1 piece of Miocene limestone containing various species of fresh-water mollusks collected by John L. James at Manhattan, Nev. (170785).

HESTER, J. PINCKNEY, Fredonia, Ariz.: 5 plants from Arizona (170815, 171020).

HICKEY, Mrs. HAZEL CHAFFEE, Washington, D. C.: 2 tin candle molds (172453).

HIGGINS, E. B. (See under Natural History Museum.)

HILDEBRAND, Dr. SAMUEL F. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

HILL, Dr. ROLLA B., New York, N. Y.: 19 mosquitoes, representing 5 species (170962); 2 slides of mosquito material, holotype female with larval and pupal skin on slide, and allotype male, slide of genitalia, and larval and pupal skins only (171497).

HINCKLEY, L. C., Marfa, Tex.: 9 grasses from Texas (172093).

HINES, Capt. HARRISON R., A. P. O., San Francisco, Calif.: 1 monitor lizard from the Philippine Islands (170948).

HINTON, JAMES C., Saltillo, Mexico: 106 plants from Mexico (172080).

HITCHCOCK, Dr. C. LEO. (See under University of Washington.)

HODGE, Lt. Gen. JOHN R. (See under Twenty-fourth Corps, U. S. Army.)

HOFFMAN, RICHARD L., Charlottesville, Va.: 6 shrews, 4 rodents, and 1 bat, collected near Clifton Forge, Va., by donor (171690, 171883); 1 salamander and 1 frog collected by donor at Charlottesville (172629).

HOKE, GLADYS. (See under State Plant Board of Mississippi.)

HOLDRIDGE, L. R., Port-au-Prince, Haiti: 196 plants from Haiti (170639, 172282).

HOLLISTER, J. M., Melbourne, Fla.: Fern from Florida (172996).

HOLLOMAN, J. A., Jr. (See under Little Museum.)

HOLMES, WALTER W. (deceased), St. Petersburg, Fla.: 2 humeri, parts of both mandibles, radius and ulna, coracoid, dorsal vertebra, and incomplete sacrum of extinct bird from the Pleistocene of Florida (170734).

HONESS, Capt. RALPH F., A. P. O., San Francisco, Calif.: Approximately 4,110 specimens of mollusks from the Philippines (170738); 116 specimens of fresh-water mollusks from near Atsugi, Honshu, Japan (171536).

HOOGSTRAAL, Capt. HARRY, and STANLEY G. JEWETT, Jr., A. P. O., San Francisco, Calif.: A small collection of insects from the South Pacific (170454). (See also under Borys Malkin and War Department, Office of the Surgeon General.)

HORN, CLAUD L. (See under U. S. Department of Agriculture, Office of Foreign Agricultural Relations.)

HOSAKA, EDWARD Y., Honolulu, Hawaii: 4 grasses from the Hawaiian Islands (171436).

HOTCHKISS, NEIL. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

HOUGH, Mrs. MYRTLE, Washington, D. C.: A collection of miscellaneous ethnological material, consisting of baskets and textiles from the Pueblo, Navaho, and Pima Indians, a sarong from the Moro, and a European embroidered tablecloth (171864).

HOUGH, P. R., Washingtons Birthplace, Va.: 1 young whistling swan (171850).

HOUSTON MUSEUM OF NATURAL HISTORY, Houston, Tex.: 1 cultivated tree (171431); 2 plants from Texas (172624).

HOWARD, Mrs. MARGARET BELL, A. P. O., Seattle, Wash.: 1,000 plants from Attu Island (172468).

HOWE, D. F., Chula Vista, Calif.: 12 plants from California (172402).

HOWELL, Prof. A. BRAZIER, Baltimore, Md.: 13 shells collected on the Allen Group, Exuma Keys, Bahama Islands, March 19, 1946 (172860).

HOWELL, JOHN THOMAS. (See under California Academy of Sciences.)

HUBBS, Dr. CARL L., La Jolla, Calif.: 1 beaked whale, collected on shore near Scripps Institution at La Jolla, on July 25, 1945, by donor (171165); 1 beaked whale, female, stranded at Del Mar, San Diego County, Calif., September 25, 1945, collected by donor (171551). (See also under Capt. Earl S. Herald and University of California, Scripps Institution of Oceanography.)

HUBBS, Dr. CARL L., JAMES B. SCHULTZ, and ROBERT C. HAVEN, Washington, D. C.: 1 fossil porpoise consisting of portions of skull, part of scapula, and 11 vertebrae, found in Calvert formation at Scientists Cliffs, Md. (173075).

HUGHES FUND, BRUCE, Smithsonian Institution: Potsherds collected on the surface at various sites throughout Trans-Jordan by Dr. Nelson Glueck for American Schools of Oriental Research and received at Museum in May 1942 (162842); archeological material from Ezion-Geber, seaport of King Solomon, on eastern arm of Red Sea (172651).

HUGHES, Prof. R. CHESTER. (See under Helen Edith Davis.)

HUNT, WILLIAM H., Washington, D. C.: Front panel of a Roman Catholic vestment, "dalmatic," from Yugoslavia (170720).

HUNZIKER, Dr. ARMANDO T., Buenos Aires, Argentina: 61 plants from Argentina (172316, 172727).

HURLEY, JOHN B., Yakima, Wash.: 1 bird skin (170758, exchange).

HYSLOP, JAMES A., Silver Spring, Md.: 1 crested flycatcher and 4 eggs of same (170719).

ILLINOIS STATE NATURAL HISTORY SURVEY DIVISION, Urbana, Ill.: (Through Dr. Herbert H. Ross) 90 flies from Korea (171941).

ILTIS, T/5 HUGH H., A. P. O., New York, N. Y.: 50 plants and 1 legless lizard from France (170590).

IMLER, EDGAR, New York, N. Y.: 40 prints by the donor, for special exhibition during April 1946 (172830, loan).

INGLES, Dr. LLOYD G., Fresno, Calif.: 1 crayfish (171723).

INGRAM, Lt. R. L. (See under Navy Department, Medical Research Unit No. 2.)

INSTITUTE OF INTER-AMERICAN AFFAIRS, Washington, D. C.: (Through W. C. Brister) 6 plants from Paraguay (171584); (through Dr. O. R. Causey) 26 slides containing 23 specimens of flies, 21 of which are holotypes (171232).

INSTITUTO BUTANTAN, São Paulo, Brasil: 105 frogs from Brasil (147879).

INSTITUTO DE BOTÁNICA DARWINIÓN, San Isidro, F. C. C. A., Argentina: (Through Dr. Arturo Burkart) 300 plants from Argentina (171123).

INSTITUTO DE CIENCIAS NATURALES, Bogotá, Colombia: 1,004 plants from Colombia (171420, 171455, 171456, 171650, 172552, 173077, exchange).

INSTITUTO GEOLÓGICO DE MÉXICO, Mexico D. F.: (Through Prof. Francisco Contreras) 101 invertebrate fossils from Jurassic and Cretaceous rocks of Mexico (166899, exchange).

INSTITUTO DEL MUSEO, La Plata, Argentina: (Through Dr. Ángel L. Cabrera) 125 plants from Argentina (171121, exchange).

INSTITUTO MIGUEL LILLO, Tucumán, Argentina: 1,612 plants from Argentina (170866, exchange).

INTERIOR, U. S. DEPARTMENT OF THE, *Fish and Wildlife Service*, Washington, D. C.: (Through Dr. Ira N. Gabrielson) 1,037 fishes, marine invertebrates, mollusks, echinoderms, coelenterates, insects, plankton, and 1 bat collected by U. S. Fishery Mission in Chile, 1944–45, in cooperation with "The Corporación de Fomento de la Producción Chile" (167496); (through J. R. Alcorn) 239 fishes, including 5 adults of rare sucker from the Lahontan Basin and the Snake River drainage of Nevada, collected by J. R. Alcorn between February 12, 1944, and September 3, 1945 (169329); (through Dr. Richard M. Eakin) a large collection of miscellaneous marine invertebrates, fishes, and mollusks collected by the U. S. Fisheries steamer *Albatross* and stored at the University of California (170423); (through Dr. Samuel F. Hildebrand) 42 fresh-water fishes from Cape Romain National Wildlife Refuge, McClellanville, S. C., collected July 10, 1944, by William P. Baldwin (170848); (through John C. Pearson) collection of miscellaneous invertebrates comprising penaeid larvae; miscellaneous shrimps; mysids; plankton samples, including miscellaneous Crustacea, jellyfish; 2,848 fishes; mollusks; macrobrachium (170881); (through Neil Hotchkiss) 103 plants from the Hudson Bay region, Ontario, and 25 plants, mostly from the eastern United States (171041, 171199); small collection of mollusks and barnacles from the Pribilof Islands, Alaska (171387); 777 birds from Georgia and Louisiana, collected by

T. D. Burleigh and others (171416); 1 bird, received from M. G. Vaiden, Rosedale, Miss. (171417); 222 birds from Newfoundland, collected by Peters and Burleigh (171418); (through Harris W. Magnusson) 9 fishes from Holy Cross, Yukon River, Alaska, collected August 9, 1945, by Lawrence Haffie, S. J. (171699); (through Dr. Belle A. Stevens) 38 identified shrimps and 2 fishes (172076); 1 brown bat (172152); 1 mouse (172359); 10 specimens of featherwork made by the Eskimos of Greenland from feathers and skins of wild birds (172486); (through Joseph S. Dixon) 35 plants from the Crater Lake National Park, Oreg. (172744); 7 bird skins from Truk Atoll (172885); rose-breasted grosbeak from Barbuda, British West Indies (172962); (through Dr. John W. Aldrich) 32 mollusks from Bulls Island, Charleston County, S. C. (173339); 269 mammals transferred by Fish and Wildlife Service and entered in the Museum catalog, between July 1, 1945, and June 15, 1946, not otherwise accessioned (173346).

Geological Survey, Washington, D. C.: 445 specimens of New England pegmatites, North Carolina mica, and Canadian asbestos, collected by David M. Larrabee (170974); 1 specimen of picrolite from Buck Creek Corundum Mine, Clay County, North Carolina (171317); 7 brachiopods and 2 echinoid spines from the Island of Eua, Tongan group, Pacific Ocean (171885); 200 specimens of invertebrates of Jurassic (Morrison) age, from Sage Creek dome, Wind River Basin, Wyo. (171936); 49 Tertiary ostracods, 13 Mesozoic ostracods, and 14 Mesozoic mollusks, from the Ohio Oil Co., Salisbury, Md. (172026); 102 fossil crustaceans of probably Carboniferous age collected by Robert A. Laurence at Douglas Dam, Sevier County, Tenn. (172056); 3 lots comprising about 300 specimens of Recent and Pleistocene Foraminifera (172057); 585 specimens of ammonites from the Crestaceous of Wyoming (172058); 31 Middle Devonian invertebrate fossils from the Batesville Manganese District, Arkansas (172288); 2 specimens of gray fluorite cubes from district near Marion, Ky. (172388); 3,700 type specimens of Mississippian and Pennsylvanian and Permian invertebrates (172421); 10 samples of bauxite and associated minerals from Babelthuap Island, Palau Islands, collected by Dr. H. S. Ladd (172787); a collection of 11 minerals from the State of Washington (172962); 63 samples of assorted Foraminifera from the Carboniferous and Permian rocks of the midwest and western United States (172971); a collection of chrome ore and associated rocks from Cuba (173127); 1 lot of Jurassic brachiopods from the Ignek formation in northeastern Alaska and 1 lot of Liassic brachiopods from Huancavelica, Peru (173129); about 1,000 specimens of Devonian and Mississippian invertebrates from the Central Mineral Region, Texas, collected by P. E. Cloud, Jr. (173133); 5 fossil egg capsules of chimaeroid fishes from the Upper Cretaceous from Mexico and New Mexico and from the Oligocene of Alaska (173134); 95 Upper Cretaceous mollusks of the lower Ripley formation near Dumas, Miss. (173342); 4 Upper Ordovician brachiopods from the Maquoketa of Iowa (173344).

National Park Service, Boulder Dam National Recreational Area, Boulder City, Nev.: Approximately 500 bones of mammals, reptiles, and birds, excavated from Rampart Cave, Ariz. (165297, loan); (through Louis Schellbach) 1 cyprinid fish from Grand Canyon, Ariz., and 1 scorpion from Arizona (168234, 171134); (through Mrs. Rose Collom) 55 plants from Arizona (170626); 3 plants from Grand Canyon, Ariz. (171751).

INTERNATIONAL BUSINESS MACHINES CORP., Washington, D. C.: 3 original devices forming the basis of the card-punch tabulating-machine business invented by Herman Hollerith and used in 1889 in compiling the Tenth Census, as follows: Pioneer Hollerith tabulating machine; pioneer Hollerith key punch; and pioneer Hollerith sorting box (171118).

IRONS, JOHN H., Thousand Island Park, N. Y.: 4 specimens of mollusk from North Inlet, Lake Worth, Fla. (173232).

IVES, Lt. RONALD L., Tooele, Utah: 72 invertebrate fossils from the Pleistocene of Utah (172380).

JACKSIE, Corp. RICHARD, Langley Field, Va.: 10 shell and stone artifacts from Munda, New Georgia Island, in the Solomon Islands Group (171159).

JACOBS, Mrs. HAROLD J., San Pedro, Calif.: 15 mollusks from near Catalina Island (172520).

JACOBSON, MORRIS K., Rockaway, N. Y.: 99 land and fresh-water mollusks from the Peekskills (171273).

JAMES, CLAYTON M., Landover, Md., 20 birds (172754, 173096).

JAMES, Dr. M. T., Fort Collins, Colo.: 5 fly larvae (173217); 18 flies, representing 6 species, 4 of which are represented by holotypes and 2 by cotypes (171195, exchange); 7 flies (171321, exchange).

JELLISON, Dr. WILLIAM L. (See under Federal Security Agency, U. S. Public Health Service, and U. S. A. Typhus Commission.)

JEWETT, STANLEY G., Jr. (See under Capt. Harry Hoogstraal and Borys Malkin.)

JIMÉNEZ, Dr. José DE Js., Santiago, Dominican Republic: 110 plants from the Dominican Republic (171435, 171803, 171966, 172417).

JOHN, E. W., Delta, Utah: 2 Middle Cambrian trilobites from Utah (172193).

JOHNSON, Mrs. GRACE HOBBS, Aurora, Ill.: A collection of 624 specimens of American pressed glass from Sandwich, Mass., Pittsburgh and Philadelphia, Pa., Wheeling, W. Va., and Midwestern factories (170852).

JOHNSON, MARGARET C. (See under University of Florida, Department of Biology.)

JOHNSON, ESTATE OF ROBERT UNDERWOOD: (Through Charles Garside) 1 engraved wood-block by Timothy Cole used for a bookplate for Dr. Johnson (172257).

JOHNSTON, Dr. EARL S., Washington, D. C.: A case of surgical instruments used by Dr. James William White (1850–1916), of Philadelphia, Pa. (170789).

JONES, HEIRS OF ROSE: (Through M. G. Gulley) Pittsburgh, Pa.: Wedding dress of the period of 1855 (173244).

KADEN, HANS, Philadelphia, Pa.: 5 pictorial photographs for permanent collection: "Dawn," "Winter Splendor," "Coming In," "A Little Window," and "Path of Light" (170953).

KANSAS, UNIVERSITY OF, *Department of Entomology*, Lawrence, Kans.: (Through Prof. R. H. Beamer) 174 flies, representing 52 species, 31 of which are represented by 94 paratypes and 1 by a metatype (170961).

KAPROVICKAS, ANTONIO, Buenos Aires, Argentina: 58 Argentine plants (172317).

KARTMAN, Lt. LEO, Camp Gordon, Ga.: 3 cotton rats from Camp Gordon (172652).

KEARNEY, Dr. THOMAS H., San Francisco, Calif.: 1 grass from Arizona (171672).

KELSO, LEON, Washington, D. C.: Fragment from type specimen of a grass (170816).

KENDALL MILLS, Walpole, Mass.: 15 study samples of "Webril," an unwoven textile cloth made by blending heat-softening fibers, such as cellulose acetate or vinyon, into a film of carded cotton (171279).

KENT, OTIS BEALL, Washington, D. C.: 41 strands of beads of various gemstones, ivory, coral, etc. (172157).

KENTROS, Corp. SAM P., A. P. O., New York, N. Y.: Bronze bust of Adolf Hitler (171449).

KERR, Prof. PAUL F., New York, N. Y.: 2 new minerals, 1 from Shinkolobwe mine, near Jadotville, and 1 from Kasompi near Kambove, Haut Katanga, Belgian Congo (171375).

KERR, Corp. WILLIAM K., F. P. O., San Francisco, Calif.: 1 wormsnake from Okinawa (170836).

KIENER, Dr. WALTER, Lincoln, Nebr., 18 grasses from Nebraska (171849).

KING, Lt. Col. W. V. (See under D. J. Lee and War Department, Surgeon General's Office.)

KIRK, Dr. EDWIN, Washington, D. C.: A green and lavender jade bracelet from China (172521).

KLEPPER, Mrs. LEON. (See under Estate of Dr. Harry M. Vastine.)

KNIGHT, Dr. J. BROOKES, Washington, D. C.: Approximately 5,000 Pennsylvanian fossils from the St. Louis outlier, St. Louis Mo. (172123). (See also under Walcott Fund.)

KNIGHT, Lt. Comdr. K. L. (See under Navy Department, Naval Medical Research Unit No. 2.)

KNOCH, Mr. and Mrs. WILLIAM P., Grand Junction, Colo.: 82 fishes, trouts, minnows, and sculpins, from streams in Garfield and Mesa Counties, Colo., collected by donors between May 1 and August 5, 1945 (171081); 8 fishes and 1 crayfish from Mesa and Montrose Counties, Colo. (172499).

KNOWLTON, Dr. GEORGE F. (See under Utah State Agricultural College.)

KNOX, R. O., Washington, D. C.: 36 plants from the Caroline Islands (172281).

KNULL, Prof. JOSEF N., Columbus, Ohio: 1 beetle, paratype (171939).

KOCH, H. J., Somerset West, South Africa: 76 mollusks from South Africa (172974).

KOCH, W. H., Somerset West, South Africa: 25 shells from South Africa (173340).

KORN, Mrs. ARTHUR, Hoboken, N. J.: Transmitter and receiver of Dr. Arthur Korn's phototelegraphy apparatus of 1904 (173358).

KORTJOHN, MARTIN F. (See under American Numismatic Association.)

KRAUSS, N. L. H., Honolulu, Hawaii: 1 frog from Cuernavaca, Morelos, Mexico (170903); 32 slides of Hawaiian thrips, representing 16 species (172743); 3 mollusks from Saipan and Guam (173210).

KROMBEIN, KARL V., Washington, D. C.: 1 mollusk from Nadzab, New Guinea (172911); 1,874 miscellaneous insects, all mounted, collected from New Guinea and the Ryukyu Islands (173268).

KRUMMEL, CARL, Baltimore, Md.: 27 bird skins from Peru (171246).

KRYGER, Dr. J. P., Flintinge, Denmark: 205 vials of coleopterous larvae, all reared, from Denmark (172037).

KUMM, Dr. HENRY W. (See under Rockefeller Foundation.)

KUNTZ, Lt. (jg) ROBERT E., Silver Spring, Md.: 868 fishes, 10 mollusks, 55 crustaceans, and 50 coelenterates from Tulagi and Florida Islands, Solomon Islands, South Pacific, collected by the donor in 1944 and 1945 (170988).

LADD, V. E., Toledo, Ohio: 2 Devonian crustaceans from Mill Creek, Lake County, Ohio (172243).

LAFFOON, JEAN L. (See under Navy Department, Naval Medical Research Unit No. 2.)

LAGERLOEF, Col. HANS, New York, N. Y.: Strip of 3 Panay Provisional postage stamps issued in the Philippine Islands in 1899 (173130).

LALICKER, Dr. CECIL G., Norman, Okla.: 127 Cretaceous and Paleozoic invertebrate microscopic fossils, including 50 type specimens (173341, exchange).

LAMBERT, Maj. WM. H., A. P. O., San Francisco, Calif.: 181 plants from the Philippine Islands (171434, 171875, 172419); 29 specimens of Philippine woods from Mindoro Island (172061).

LAMM, DONALD W., A. P. O., Miami, Fla.: 7 birds from Brazil (171322).

LAMORE, D., Silver Spring, Md.: 37 rodents, collected by donor at Silver Spring (171724, 172393, 173348).

LANDERS, BERTHA, Dallas, Tex.: 28 etchings and lithographs by donor for special exhibition (172433, loan).

LANDO, Lt. (jg) ROBERT ELLIS, Washington, D. C.: 146 mollusks; insects, crustaceans, fishes, and plants (171315); 4 dragonflies and 105 mollusks from Florida (171503); 110 marine shells from Miami, Fla. (172052); 168 land, fresh-water, and marine shells and a small collection of barnacles from Florida (172315).

LANE, Dr. JOHN, São Paulo, Brazil: 94 specimens of mosquito material comprising 61 pinned adults and 29 slides of Neotropical mosquitoes, and 4 pinned paratypes of 1 species (171152).

LANE, Lt. P. H., San Francisco, Calif.: 2 plants from Japan (171767).

LANGFORD, DANIEL R. (address unknown): 89 fresh-water mussels from Arkansas (167283).

LASKY, WILLIAM R., Denver, Colo.: 30 mosquitoes from Colorado (173131).

LAVERS, Mrs. AUDREE, Seattle, Wash.: 84 water mites, representing 27 species, 11 of which are represented by 27 paratypes, collected and described by the late C. H. Lavers, Jr. (171702).

LEADBETTER, Mrs. GUY W., Washington, D. C., (See under Estate of Dr. Guy W. Leadbetter.)

LEADBETTER, ESTATE OF Dr. GUY W.: (Through Mrs. Guy W. Leadbetter) A mounted head of Newfoundland caribou (172040).

LEE, D. J., Sydney, New South Wales: 69 mosquitoes, representing 16 species, 5 of which are represented by 10 paratypes (171942); (through Lt. Col. W. V. King) 25 slides of mosquito material (172479).

LEE, Capt. DUDLEY P., Springfield, Va.: 25 photomicrographs in color from 3 separation negatives utilizing polarized light, made by the "Triak Color Process," exhibited July 1945 (170782, loan); 7 color photographs by Triak process, invented by donor (172759).

LEECH, HUGH B. (See under Canadian Government, Department of Agriculture, Dominion Entomological Laboratory.)

LEESON, H. S. (See under London School of Hygiene and Tropical Medicine.)

LEGRAND, Dr. DIEGO, Montevideo, Uruguay: 10 ferns from Uruguay (161504, exchange).

LEITE, JOSÉ EUGENIO, São Paulo, Brazil: 10 specimens of ferns from Brazil (171869); 60 ferns from Brazil (172895, exchange).

LEON, Rev. Brother, Vedado-Habana, Cuba.: 37 plants from Cuba (171438); 15 grasses from Cuba (171518).

LEONARD, E. C., Washington, D. C.: 100 plants from Maryland (172097).

LEVER, R. A., Suva, Fiji Islands: 7 specimens of mosquito material (172891).

LINCK, ROBERT C., Philadelphia, Pa.: 1 specimen of salesite from Chuquicamata, Chile (171139).

LINDSEY, Prof. ALTON A., Albuquerque, N. Mex.: 25 amphipods from permanent ponds in tube cavern sink-holes in central New Mexico (171380).

LINSLEY, Dr. E. GORTON. (See under University of California.)

LINSLEY, Capt. L. N., U. S. N., Washington, D. C.: A bow and 8 arrows from the Negritos of the Zambales Mountains of Luzon, Philippine Islands, collected by the donor in 1939 (173178).

LITTLE, Dr. ELBERT L., Jr., Washington, D. C.: 44 ferns from Colombia (170805); 210 plants from Chiapas, Mexico (172725).

LITTLE, LAURA REVERE, Brookline, Mass.: Jacquard-figured, pictorial silk-and-wool fabric commemorating the Centennial of the Independence of the United States (173191).

LITTLE MUSEUM, Lansdowne, Md.: (Through J. A. Holloman, Jr.) 1 specimen of fossil wood from the Potomac formation at Elkridge, Md. (171493).

LLANO, RAUL J., Bolivar, Argentina: 4 butterflies from Argentina (172206).

LLOYD, HOYES. (See under Lloyd Collections.)

LLOYD COLLECTIONS, Ottawa, Ontario: (Through Hoyes Lloyd) 26 bird skins from eastern Canada (172292).

LOCKE, Mrs. J. G., Washington, D. C.: A wedding outfit and accessories of the year 1894 and a white silk handkerchief of 1886 (173132).

LOCKLIN, CHARLES R., Detroit, Mich.: 15 fossil shells from Florida (173263, 173345).

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, London, England: (Through Prof. P. A. Buxton and H. S. Leeson) 60 Oriental and Australian mosquitoes (172099, exchange).

LOWELL, Prof. WAYNE RUSSELL. (See Montana State University.)

LUTZ, Dr. BERTHA, Rio de Janeiro, Brazil: 5 frogs from Brazil (171415, exchange).

LYMAN, FRANK, Lantana, Fla.: 5 mollusks from Florida (171274, 172122, 172156).

MACARTHUR, Mrs. W. E., Jacksonville, Fla.: 2 plants from Florida (171595).

MACCORD, Maj. HOWARD A., Washington, D. C.: 17 land and fresh-water shells from Georgia Indian sites (170779); 19 Neolithic (?) potsherds from an exposure on the right bank of Leine River, just south of Haisede, near Hanover, Germany (171039). (See also under Seymour A. Abramowitz.)

MACCORD, Maj. HOWARD A., and CARL P. MANSON, Washington, D. C.: Potsherds of three types recognized at the Keyser Farm site, near Rileyville, Page County, Va. (171943).

MACKENZIE, Corp. K., A. P. O., San Francisco, Calif.: 1 spider (172143).

MACMASTER, Mrs. F. A., Los Altos, Calif.: United States silk flag flown by a New York regiment during the battle of Fredericksburg, Va., December 13, 1862 (172413).

MACY, Prof. RALPH W., Portland, Oreg.: 9 mollusks from Bakeoven Creek, Wasco County, Oreg. (171272).

MAFFEN, HERBERT C., F. P. O., San Francisco, Calif.: 2 mollusks from Marshall Islands (171355, 171525).

MAGNUS, HARRY C., West Palm Beach, Fla.: 2 pieces of wood containing about 25 wood-boring mollusks (171935).

MAGNUSSON, HARRIS W. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

MAHONEY, Capt. and Mrs. MICHAEL, Harpers Ferry, W. Va.: 1 16-mm. Keystone Kinescope Projector, Model E-32, and 1 reel, Charley Chaplin in "Skip the Puddles" (171948).

MALAISE, Dr. RENÉ, Stockholm, Sweden: 1 sawfly (172779).

MALKIN, Pfc. BORYS, A. P. O., San Francisco, Calif.: A collection of miscellaneous insects from Dutch New Guinea made by the donor, Pfc. Ed. Held, Stanley Jewett, Jr., and Lt. H. Hoogstraal (170444); 1 collection of miscellaneous insects from New Guinea, Morotai, and Luzón (171085); a small collection of insects from the Philippines (171485, 171854, 172198).

MANSON, CARL P., Washington, D. C.: Bone and stone implements from Adak Island, Andreanof Group, the Aleutians, Third Judicial Division, Alaska (172294). (See also under Maj. Howard A. MacCord.)

MANTER, Prof H. W., Lincoln, Nebr.: 4 slides of trematodes, including 2 types and 2 paratypes (170537); types of 2 trematodes (171191).

MARBLE, Dr. JOHN P., Chevy Chase, Md.: 1 specimen of mineral from Marysvale, Utah (173073).

MARIE CAROLINE, Sister, Key West, Fla.: 3 mollusks (169959).

MARITIME COMMISSION, U. S., Washingington, D. C.: (Through J. M. Winston) 6 scale models of steamships, U. S. Maritime types, period of World War II (170015).

MARKS, ELIZABETH L., Brisbane, Queensland: 10 mosquitoes (6 adults, 4 larvae) (171938).

MARSH, F. W., Washington, D. C.: Copy of the Holy Bible, with the Apocrypha, published by B. B. Mussey, Boston, 1842 (171865).

MARSHALL, ERNEST B., Laurel, Md.: 21 muskrats, 3 opossums, 1 skunk, 1 weasel, and 3 raccoons taken near Laurel by the donor (170919).

MARTÍNEZ, Prof. MAXIMINO, Morelia, Michoacán: 51 plants from Mexico (171250); 5 wood specimens from Mexico (173385).

MARY CORDE, Sister, Maryknoll, N. Y.: 2 mollusks from the Canal Zone (171092).

MASON, Mrs. ILA J., Leitchfield, Ky.: 19th-century American lidded majolica jar (171480).

MASTA DISPLAYS, New York, N. Y.: 7 examples of silk-screen color printing and 1 duplicate, the work of Masta Displays (170869).

MATHÉ, Dr. CHARLES P., San Francisco, Calif.: 1 fish, "English sole," caught by donor in San Francisco Bay (172867).

MATHESON, Prof. ROBERT, Ithaca, N. Y.: 5 slides of filés (171760).

MATUDA, Prof. E., Escuintla, Chiapas: 326 plants from Mexico (172081, 173355).

MAZZOTTI, Dr. LUIS, Mexico, D. F.: 1 shrew collected at Sabinas, Coahuila (170311); 2 white-throated wood rats from Bocas, San Luis Potosí (170975).

McBURNEY, Lt. (jg) JOHN T., F. P. O., San Francisco, Calif.: 66 fishes and hermit crabs from Kerama Retto in the Okinawa Gunto, collected by donor during July 1945 (171082); collection of fishes, mollusks, crustaceans, and reptiles from Saipan, Marianas Islands (171312).

McCALLUM, LEROY M., Jr., Laguna Beach, Calif.: Model of Seversky airplane, P-35 (172622, loan).

McCORMICK-GOODHART, LEANDER, Hyattsville, Md. (See under Prof. Sir Geoffrey Callender.)

McCOY, Lt. Col. O. R. (See under War Department, Office of the Surgeon General.)

McCRARY, O. F., Raleigh, N. C.: 1 plant from eastern United States (170710).

McCULLOCH, Dr. IRENE. (See under University of Southern California, Allan Hancock Foundation.)

McDONALD, Pfc. EDWARD D., Jr., Shaker Heights, Ohio: 266 plants from Georgian Bay region, Canada (171806).

McDOUGALL, Mrs. ELSIE, Bearsville, N. Y.: Larval nest of a gregarious butterfly and strips of silk removed from tent or "bolsa" of a gregarious silk spinner, both from Mexico (172896); yellow, pierced cocoons of the mulberry silkworm raised by Zapotic Indians at San Francisco Cajonas, Mexico; a ball of spun silk yarn and part of a silk sash (172977).

McFARLAND, Prof. FRANK T., Lexington, Ky.: 20 plants from Kentucky (172297, exchange).

McGUFFIN, FRANK L., Washington, D. C.: 3 Gaspar color prints (172347).

McGUIRE, W. C., Houston, Tex.: 1 whale skull from an animal washed ashore on the Gulf beach of St. Joseph Island, Aranasas County, Tex., in May 1940 (171761).

McKEE, BENJAMIN HARRISON, and Mrs. MARY McKEE REISINGER, Greenwich, Conn.: Inaugural Ball dresses of Mrs. Benjamin Harrison and her daughter, Mrs. J. R. McKee, worn in 1889 and dress worn by Mrs. Harrison during the period of President Harrison's administration as President, 1889–1893 (170780).

McMANUS, JOHN J., Detroit, Mich.: Rotol electric proportional governor for airplanes (172065).

McMASTER, Lt. JOHN, F. P. O., San Francisco, Calif.: Specimen of analcite from Guam (171494).

McMILLEN, Pvt. JACK R., A. P. O., New York, N. Y.: 20 plants from Burma (170962, 172469).

McVAUGH, Dr. ROGERS. (See under U. S. Department of Agriculture, Bureau of Plant Industry, Soils, and Agricultural Engineering.)

McVICKER, Lt. (jg) J. JAY, F. P. O., New York, N. Y.: 19 aquatints and 18 drawings for special exhibition during October 1945 (171459, loan).

MEDCOF, J. C., St. Andrews, New Brunswick: 10 amphipods from New Brunswick (170737).

MELA, HAREY F., Pelham Manor, N. Y.: 1 "Junior Marvel" self-filling fountain pen, old style, with 2 old pen points (171873).

MELL, Dr. C. D., New York, N. Y.: 25 plants from Mexico (171021).

MERCK & Co., INC., New York, N. Y.: 8 photographs, 16 transparencies, 8 minerals, and 8 specimens of medicines arranged in an exhibit to illustrate important mineral kingdom contributions to materia medica (171066).

METROPOLITAN CAMERA CLUB COUNCIL, Davenport, Iowa: 75 pictorial photographs for special exhibition during January 1946 (172134, loan).

MEXICAN GOVERNMENT, *Department of Agriculture*, San Jacinto, D. F.: (Through Ing. Darío L. Arrieta M.) 2 weevils from Mexico (170607); a small collection of beetles collected in Mexico by Juan Romero H. (171594).

Oficina Fitosanitaria, Veracruz, Veracruz: (Through Jesús Mendoza Vargas) 24 insects from vanilla plants in Mexico (169880, 170359).

MICHIGAN, UNIVERSITY OF, *Museum of Zoology*, Ann Arbor, Mich.: (Through Dr. Reeve M. Bailey) 34 fishes from Venezuela, collected by Dr. F. F. Bond in 1938–39 (168602); 54 fishes from Guatemala (171457); 2 fishes from Laguna de Alchichica, Puebla, Mexico, collected from Fernando de Buen, 1941 (paratypes) (171664); 150 fishes from City Creek, San Bernardino County, Calif. (171946, exchange).

MILES, CECIL, Mariquita, Colombia: 13 fishes from the Magdalena River, Colombia (172162).

MILES, Capt. V. I., Fort McPherson, Ga.: 527 mosquitoes from the vicinity of Ledo, Assam, India (170657). (See also under War Department, Fourth Service Command Medical Laboratory.)

MILLER, GERRIT S., Jr., Washington, D. C.: 2 gray squirrels collected in Washington, D. C. (170781); 2 shrews and 1 lot of reptiles (171909).

MILLER, PAUL A., Alexandria, Va.: A wood-turning lathe (172621).

MILLER, RALPH G., Van Nuys, Calif.: 2,206 fishes, tree toad, snake, and mollusks, collected in the Santa Clara River, Los Angeles County, and Sentenac Canyon, San Diego County, Calif., by the donor; also experimentally raised fish (170987); 3,031 fishes, 2 frogs, 1 insect from streams of southern California (171289).

MILLER, Lt. RICHARD G., Washington, D. C.: 2 toads, 7 lizards, and 5 fishes from islands in the Pacific (171193).

MILLER, Dr. ROBERT R., Arlington, Va.: 3,825 fishes (selected series) from tributaries of the Potomac River in Maryland (171044); 100 fishes from Lucky Run, tributary to Four Mile Run, Fairfax County, Va. (172064).

MILNER, Lt. P. K., Washington, D. C.: 1 colony of Ordovician coral from near Knoxville, Tenn. (170654).

MINISTERIO DE AGRICULTURA Y COLONIZACIÓN, La Paz, Bolivia: A small collection of insects from Bolivia (171599).

MISNER, ERNEST L., Washington, D. C.: 5 marine shells from Plum Channel, Gerrittsen Beach, Brooklyn, N. Y. (170749).

MISSISSIPPI, STATE PLANT BOARD OF, State College, Miss.: (Through Gladys Hoke) 30 isopods (100757).

MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 132 plants from Maine and Texas (170723, exchange).

MITCHELL, CORNELIUS, New York, N. Y.: 3 parasitic copepods (170760).

MITCHELL, Col. R. L., Washington, D. C.: 4 crystals from St. Anstell, Cornwall, England, and from the Camaroons, Africa, and 17 fossils from England (172550, exchange).

MODERN PLASTICS INC., New York, N. Y.: 52 specimens illustrating recent utilization of 11 synthetic plastics; also a copy of the "Modern Plastics Catalog for 1945" (173387).

MOLDENKE, Dr. HAROLD N., New York, N. Y.: 45 grasses from Middle Atlantic States (170835, 171127, 171335).

MONTANA STATE UNIVERSITY, Missoula, Mont.: (Through Prof. Wayne Russell Lowell) 202 types and figured specimens of Middle Cambrian brachiopods and 165 types and figured specimens of Middle Cambrian trilobites from Montana (170646).

MONTE, Dr. OSCAR, São Paulo, Brazil: 35 insects (14 beetles and 21 bugs, the latter including 11 species) (171414, exchange); 117 insects (171662, exchange).

MONTERO O., Prof. GILBERTO, Temuco, Chile: 1 plant from Chile (171237).

MONTGOMERY, Lt. LENA R., A. P. O., San Francisco, Calif.: 1 butterfly (170829).

MOORE, Capt. BYRON, Morgantown, W. Va.: A drum and a club from northeastern New Guinea, collected by donor (172688).

MOORE, EMMELINE, New Haven, Conn.: 20+ mysids, 13 copepods, and 3 amphipods from the stomach of a flounder (170198).

MOORE, Ensign GEORGE C., Auburn, Ala.: 591 plants from Guam (172906, 173260).

MOORE, Dr. RILEY D. (See under Estate of Dr. Harry D. Vastine and Mrs. Marie Stern Walling.)

MORGAN, ALBERT, Rocky Hill, Conn.: Nest of Baltimore oriole (170644).

MORRISON, B. Y. (See under U. S. Department of Agriculture, Bureau of Plant Industry, Soils, and Agricultural Engineering.)

MOSTAJO, Dr. BENJAMIN, Lima, Peru: 1 rat and 1 squirrel from Peru (171911).

MUMA, Dr. MARTIN H., Lincoln, Nebr.: 2 spiders, paratypes of a new species (171394).

MUÑOZ P., Dr. CARLOS, Santiago, Chile: 1 plant from Chile (170708).

MUNRO, J. A., Okanagan Landing, British Columbia: 81 mollusks from northern British Columbia, 2 conchostracans, and 2 insects (171658).

MUNRO, JEAN, Washington, D. C.: Four fragments of soapstone vessels, broken in process of manufacture, found at quarry site near Darlington, Md. (173219).

MURPHY, Col. JAMES B., Columbia, S. C.: 1 mounted platypus from Australia (172085).

MURRAY, Dr. J. J., Lexington, Va.: 6 bird skins from Lexington, Va. (171473, 172226). (See also under Rev. John Gray.)

MURRILL, Dr. W. A., Gainesville, Fla.: 12 plants from Florida (171553, 171796, 172942).

MUSÉUM NATIONAL D'HISTOIRE NATURELLE, Paris, France: (Through Dr. Louis Fage) 1 crustacean (171832, exchange).

MYERS, GEORGE HEWITT, Washington, D. C.: 8 keris and 1 chopping knife from Java (169512).

NATIONAL GEOGRAPHIC SOCIETY, Washington, D. C.: 3 fragments of Bryozoa (171969).

NATURAL HISTORY MUSEUM, San Diego, Calif.: (Through E. B. Higgins) 1 plant from California (170671).

NATURHISTORISKA RIKSMUSEET, Stockholm, Sweden: (Through Dr. Th. Arwidsson) 255 plants, mostly from tropical America (171160, exchange); 8 photographs of Asiatic plants (171762, exchange).

NAVY DEPARTMENT, Washington, D. C.: 10 small mammals forwarded by Malaria and Epidemic Control Unit No. 16 (172140).

Bureau of Aeronautics, Washington, D. C.: 19 model Navy airplanes of the period just after World War I, including exhibition cases for same (171119).

Bureau of Ships, Washington, D. C.: (Through Lt. E. F. Carlston) 25+ barnacles from the vicinity of Okinawa (170918).

Bureau of Supplies and Accounts, Washington, D. C.: 75 study samples of various textile fabrics used by the Naval Forces in World War II (172665).

Bureau of Yards and Docks, Washington, D. C.: 2 models of official Seabee insignia (172178).

National Naval Medical School, Bethesda, Md.: 30 fresh-water and marine shells from New Guinea (170570); 50 mollusks from Tarakan, Borneo (170870); 6 rats forwarded by Lt. M. S. Johnson from Hawaii (170875); 250 mollusks (170910); 9 rats and 4 shrews from Okinawa, forwarded by Lt. T. B. Murray (170989); 11 rodents (171466); 20 bats, 7 rats, 27 birds, 38 reptiles, insects, and 40 snails forwarded by Lt. (jg) Arthur K. Crews and collected by T/5 A. J. Nicholson, under command of Lt. John Burke (171606); 134 bird skins, 1 egg, and 1 bird in alcohol from Palau and Guam Islands (171628); 337 mammal specimens; collection of 596 birds skins, 1 bird in alcohol, and 3 birds nests and eggs, 51 fishes; insects, marine invertebrates, reptiles, 238 mollusks, 404 plants, echinoderms (171693); 8 snails from Island of Kyushu, Japan (171791); 1 spider from Parry Island, Eniwetok, Marshall Islands, collected November 15, 1945, by M. M. Mansuy (171908); 27 rodents forwarded by Lt. (jg) Jesse E. Barker (172083); 15 rodents forwarded by Lt. T. B. Murray H(S), U. S. N. R., (172181); 13 rodents forwarded by Lt. (jg) L. E. Ulbrich (172362).

Naval Clothing Depot, Brooklyn, N. Y.: U. S. naval insignia of World War II (172212).

Naval Medical Research Unit No. 2, Bethesda, Md.: 350 plants from Guam, 21 sea-urchins, 1 starfish, 1 sea-cucumber, and 1,860 fishes from the south Pacific; also mollusks and 15 lizards (171477); 427 bird skins, 13 birds in alcohol, 4 nests and eggs; 321 mammal skins, 370 mammal skins, 370 mammal skulls, 7 bats in alcohol; 288 reptiles; 7 corals; 13 mollusks; 431 miscellaneous invertebrates; 3 fishes; 6 insects, from islands in the Pacific Ocean (170990); 1 water-buffalo skull; 382 land and marine mollusks; 5 vials of parasitic worms from Guam; 394 slides of chiggers and 135 vials of miscellaneous insects from the Marianas; 277 plants from Guam; 1 echinoderm (171261); (through Lt. R. M. Bohart) 57 specimens of mosquito material collected on Okinawa (171622); 23 reptiles, 1 fish, and 6 insects collected by Lt. Comdr. K. L. Knight at Osmena, Samar, Philippine Islands, during June–August 1945 (172092); miscellaneous biological specimens from Okinawa and Guam (172150); (through R. H. Baker) collection of miscellaneous insects, crustaceans, mollusks, worms, and echinoderm, collected by donor and others on Peleliu, Guam, Ulithi (172713); (through Lt. George W. Wharton) 565 vials and 3,357 slides of ectoparasites and miscellaneous arthropods (172913); (through Commodore Thomas M. Rivers) approximately 1,775 fish specimens from Rota and Guam, Marianas, collected by Ensign David G. Frey between October 16 and November 26, 1945 (172943); (through Lt. Comdr. K. L. Knight, Lt. L. C. Rozeboom, and Jean L. Laffoon, Ph. M. 1/c)

450 specimens of mosquito material collected in the Pacific Islands (172976); (through Lt. Comdr. K. L. Knight, Lt. R. M. Bohart, and Lt. R. L. Ingram) 1,251 adult insects, representing 41 species, and 113 slides and 35 vials of larvae of mosquitoes, collected in the southwest Pacific (173168); (through Ph. M. 1/c Jean L. Laffoon) 2,308 mounted Diptera, 24 small boxes of unmounted Diptera, and 16 small boxes of unmounted miscellaneous insects (173203); (through Lt. G. E. Bohart and Lt. J. L. Gressitt) a collection of miscellaneous insects from Guam and a few from Luzón, Okinawa, and Honshu (173267).

NEILL, M. AGNES, Washington, D. C.: 2 pairs of children's kid gloves of the latter part of the 19th century; a gentleman's white embroidered vest of the early part of the 19th century; a locket with tintype portraits, 1862 (173076).

NETTING, M. GRAHAM. (See under Carnegie Museum.)

NEW MEXICO STATE COLLEGE, State College, N. Mex.: 1 cultivated plant from New Mexico (171264).

NEW YORK BOTANICAL GARDEN, New York, N. Y.: 1 plant collected by P. Wilson in Cuba (171019, exchange); 2 plants from Cuba (171124, 172079, exchange); 73 plants from Utah (171644, exchange); 93 plants from Surinam and British Guiana (171654, 171721, 172020, 172530, 172896, exchange); 244 plants (172756, 172758, exchange).

NEWELL, Prof. NORMAN D., New York, N. Y.: Specimen of Jurassic brachiopod from Africa (173038, exchange); 35 Pennsylvanian, Permian, and Triassic fossils from western United States (173128).

NICHOLSON, DONALD J., Orlando, Fla.: 2 birds (171128).

NICOL, DAVID, Stanford University, Calif.: Paratype of mollusk from the Miocene of the Panama Canal Zone (172053).

NIGERIAN GOVERNMENT, *Chief Conservator of Forests*, Ibadan, Nigeria: 19 plants from the Forest Herbarium, Ibadan, Nigeria (172818).

NININGER, H. H., Artesia, N. Mex.: 12 mollusks from New Mexico (171035).

NIXON, Dr. G. E. (See under British Government, British Museum of Natural History.)

NORTHROP, Prof. STUART A., Albuquerque, N. Mex.: 3 types of cephalopods from the Permian Chupadera formation of New Mexico (171859, exchange).

O'CONNOR, Lt. BILL, Worcester, Mass.: 25 fishes caught in July 1945 in lagoon and tidal pool, Peleliu, Palau (172256).

OHIO STATE UNIVERSITY, *Department of Zoology*, Columbus, Ohio: (Through Dr. Wilbur M. Tidd) 2 marine invertebrates (171468).

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE, Stillwater, Okla.: 7 cultivated grasses (171573).

OLIVER-GONZÁLES, Dr. José. (See under University of Puerto Rico.)

OLMSTED, Dr. A. J., Washington, D. C.: 1 large, single-blade, spring scarificator, with case (171080); 1 magazine Cyclone Camera No. 2, made about 1900, holding 12 plates 3¼ by 4¼ inches (171458).

OLMSTED, Mrs. A. J., Washington, D. C.: A tintype mounted on a card-de-visite, new to the collection (173388).

OLSON, Maj. THEODORE A. (See under War Department, Eighth Service Command.)

O'NEILL, Father HUGH. (See under Catholic University of America.)

OREGON STATE COLLEGE, Corvallis, Oreg.: (Through Dr. Helen M. Gilkey) 1 grass from Oregon (170806). *Seafoods Laboratory*, Astoria, Oreg.: (Through Dr. E. W. Harvey) 1 fish (170521).

ORIENTAL INSTITUTE, Chicago, Ill.: Cast of an impression of a cylinder seal found at Tel Asmar (Eshnunra) about 50 miles northeast of Baghdad (171971).

ORPET, E. O., Santa Barbara, Calif.: 1 plant (172738).

ORTIZ, Dr. IGNACIO C., San Cristóbal, Venezuela: 1 tapeworm (172377).

OSGOOD, Mrs. CHARLES C., Kensington, Md.: A white muslin dress worn by Mehitabel Kenrick on the occasion of her marriage in 1814 to Abisha Samson, both of Newton, Mass.; a triangular scarf and an infant's dress (172637).

OSMENT, Capt. WILLIAM, Hollywood, Fla.: 31 mollusks from Cuba (170824).

OTIS, JAMES C., Jr., Montpelier, Vt.: Fish, crabs, mollusk, shrimp, eels, and shell from Guam; also 2 lizards, collected by donor between April and November 1945 (172379).

OVERBEEK, Dr. J. VAN. (See under University of Puerto Rico.)

OVERMANN, C. I., Birch Tree, Mo.: Specimen of Ordovician pelecypod from the Jefferson City formation in southern Shannon County, Mo. (172250).

OWEN, Lt. ROBERT L., Marboro, N. J.: 19 lizards and a collection of miscellaneous insects from the New Hebrides (172024).

PACKCHANIAN, Prof. A. (See under University of Texas.)

PALMER, DAVE, Manhasset, N. Y.: 30 late Silurian cystids (172054, exchange).

PALMER, Chaplain KENNETH L., U. S. N. R., Worcester, Mass.: Stone and shell implements from the islands of Saipan and Tinian, Marianas Group, Pacific Ocean (171754).

PARK, Capt. IRVING H., A. P. O., San Francisco, Calif.: 1 slide of a mite from a rat at Oro Bay, New Guinea (171192).

PARODI, Dr. LORENZO, Buenos Aires, Argentina: 17 plants from Argentina (171911); 16 grasses from Argentina (171517, exchange).

PAYNE, Dr. EUGENE H., Rio de Janeiro, Brazil: Small collection of miscellaneous insects, helminths, 2 centipedes, and 3 scorpions from Brazil (172114).

PEABODY, STUYVESANT, Chicago, Ill.: 41 pictorial photographs for exhibition during December 1945 (171947, loan).

PEARSON, JOHN C. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

PENN, Lt. GEORGE H., New Orleans, La.: 25 crayfishes, including type and paratype of one species (171464).

PENNOYER, Mrs. MARGARETTE WYATT. (See under Estate of Sophie P. Casey.)

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION, Harrisburg, Pa.: 10 miscellaneous bones from archeological excavation in southwestern Pennsylvania (162383).

PENNSYLVANIA STATE COLLEGE, State College, Pa.: 21 grasses from Pennsylvania (171478, exchange).

PENNSYLVANIA, UNIVERSITY OF, Philadelphia, Pa.: (Through Richard W. Pohl) 5 grasses (172948, exchange).

PERKINS, Mrs. C. M. (See under Lt. Col. Charles E. Woodruff.)

PERKINS, J. U., Washington, D. C.: 1 Agfa flash lamp and 1 box of Victor flash powder (171743).

PERRY, K. M., Washington, D. C.: A small lot of Collembola, collected near Falls Church, Va. (170593).

PERRY, Dr. STUART H., Adrian, Mich.: 1 specimen of Livingston, Tenn., meteorite, weight 155 grams (163686); specimen of Dimmitt, Castro County, Tex., meteorite, weight 3.576 grams (170499); 1 slice of Pine River, Wis., meteorite (172158).

PERRYGO, W. M. (See under Smithsonian Institution, National Museum.)

PETRIDES, GEORGE A., Columbus, Ohio: 1 shrew (172739).

PHELPS, W. H., Caracas, Venezuela: 9 birds from Venezuela (171247, exchange).

PHILADELPHIA CHILD HEALTH SOCIETY, Philadelphia, Pa.: 12 charts interpreting food values (172432).

PHILBRICK, OTIS, Westwood, Mass.: 35 lithographs by the donor for special exhibition (172562, loan).

PHILIP, Lt. Col. CORNELIUS B. (See under United States of America Typhus Commission.)

PHILLIPS, CHARLIE A., Aladdin, Wyo., Young adult female Indian skull, lacking face and lower jaw, from northeastern Wyoming (171471).

PHILLIPS, Prof. WALTER S. (See under University of Arizona.)

PHOTO UTILITIES, INC., New York, N. Y.: (Through Joseph M. Bing) 1 Display Justophot visual exposure meter, 1 Display Expophot visual exposure meter, and 1 Display Mini electric exposure meter (172783).

PHOTOGRAPHIC SOCIETY OF AMERICA, Philadelphia, Pa.: 94 salon prints, 9th annual show of the Society, August 10 to 26, 1945 (171043, loan).

PICKEL, Dr. D. BENTO, São Paulo, Brazil: 46 grasses from Brazil (173246).

PITTIER, Dr. H., Caracas, Venezuela: 97 plants from Venezuela, mainly collected by Dr. T. Lasser (169802); 94 plants from Venezuela, collected by F. Cardona (171281); 11 photographs of plants from Venezuela (172299).

PIZZINI, ANDREW, Washington, D. C.: 3 beetle larvae, 100+ amphipods, 2 isopods, and 4 flatworms (170502); 140 fresh-water amphipods collected in Gloucestershire, England (170972).

PLETSCH, Capt. DONALD J., A. P. O., San Francisco, Calif.: 284 fresh-water snails from Leyte, Philippine Islands (171365).

PLUGGE, JOHN A., Chevy Chase, Md.: 1 pink sapphire pendant weighing 6.19 grams (171062, loan).

POHL, RICHARD W. (See under University of Pennsylvania.)

POLAROID CORP., Cambridge, Mass.: 5 three-dimensional Polaroid Vectographs and a new kind of stereograph, operated by means of polarized light (172301).

POND, CAROLINE, Washington, D. C.: Prehistoric water jar, probably from the Rio Puerco drainage, Apache County, Ariz., and 2 photographs taken at Zuñi Pueblo, New Mexico, in 1891 and 1896 (172584).

POPULAR PHOTOGRAPHY, New York, N. Y.: 83 pictorial photographs for special exhibition (172532, loan).

PORTER, Prof. C. L. (See under University of Wyoming.)

POST, E. J., Tampa, Fla.: 5 recent shells and 4 fossil shells from Florida (170735).

POST OFFICE DEPARTMENT, Washington, D. C.: 8 sets of specimen stamps, 1,547 specimens received from the International Bureau of the Universal Postal Union (170002, 170909, 171257, 171357, 171679, 172071, 172705, 172786); 66 stamps of Russia received from the Postal Administration of the U. S. S. R. (170909, 171465); 9 stamps from the International Office of the Postal Union of the Americas and Spain (171257, 171465); 3 specimens each of the 1-cent and 3-cent Roosevelt and 3-cent Iwo Jima Commemorative stamps (171361); 3 copies each of 2-cent Roosevelt Memorial and 3-cent Army Commemorative stamps (171788); 3 copies each of Alfred E. Smith, U. S. Navy, and U. S. Coast Guard 1945 stamps (172069); 1 6-cent Canal Zone airmail stamp (172572); 3 copies each of Texas 3-cent commemorative, 5-cent Roosevelt, and 3-cent Merchant Marine stamps (172810); 1 5-cent Canal Zone stamp (173046).

POTTER, Prof. G. E., Mayagüez, Puerto Rico: 158 mollusks from Puerto Rico (169948).

POTZGER, Prof. J. E. (See under Butler University.)

PRATT, HARRY D. (See under Federal Security Agency, U. S. Public Health Service.)

PRATTE, PAUL K., St. Louis, Mo.: 37 pictorial photographs for special exhibition during April 1946 (172777, loan).

PRETTYMAN, ESTATE OF LILY MORGAN: (Through Ruth H. Prettyman) Howe sewing machine (Serial No. 301121) made about 1874 in Bridgeport, Conn., by the Howe Machine Co. and owned by A. B. Stockwell and Levi S. Stockwell, sons-in-law of Elias Howe, Jr. (171040).

PRETTYMAN, RUTH H. (See under Estate of Lily Morgan Prettyman.)

PRINCETON MUSEUM OF ZOOLOGY, Princeton, N. J.: 5 bird skins from the New Hebrides, including 3 forms new to the collections (170389, exchange).

PROCTOR, JOHN L. (See under Mrs. Sarah Proctor Dole.)

PUERTO RICO, UNIVERSITY OF, Mayagüez, Puerto Rico: (Through Dr. Carlos E. Chardon) 1 plant from Barbados (170727); (through Dr. J. van Overbeek) specimen of plant from Puerto Rico (172669); (through Dr. José Oliver-Gonzáles) 265 slides of mosquito material, representing 22 species (171663, exchange).

QUESTEL, ADRIEN, Pointe-a-Pitre, Guadeloupe: 2 crabs and 12 casts of fossil shells (170944); 458 plants from Guadeloupe (172597, 172972).

QUICK, Sgt. HORACE F., Camp Patrick Henry, Va.: 2 birds from Unalaska (169281).

QUOTA CLUB INTERNATIONAL, INC., Washington, D. C.: (through Mrs. Elizabeth J. White) Copy of a Martha Washington china plate made by the Shenango Pottery Co. in 1932 (116950).

RABKIN, Dr. SAMUEL, Cincinnati, Ohio: 21 human fetuses and 9 sets of jaw sections, adult (173169).

RADFORD, Sqdn/Ldr. CHARLES D., Manchester, England: 34 specimens on slides of parasitic mites, representing 27 species by 28 paratypes (172712, exchange).

RANDEL, Pfc. HUGH WAYNE, Washington, D. C.: 21 reptiles and amphibians from Marion County, Fla., collected by donor in September 1945 (171835).

RANDOLPH, ORRIN, Lake Worth, Fla.: Cranial fragments recovered from sand mound near southern part of Lake Worth, Fla. (172068).

RAPP, F. W., Vicksburg, Mich.: 12 specimens of grasses (173161).

RAPP, WILLIAM F., Jr., Urbana, Ill.: 39 amphipods (173042).

RAPP, Mr. and Mrs. WILLIAM F., Urbana, Ill.: 253 amphipods (171808).

RAPPLEYE, Capt. HOWARD S., Washington, D. C.: 1 plant from Takoma Park, D. C. (171018).

RASETTI, Dr. FRANCO, Quebec, Quebec: 50 Ordovician brachiopods from the Trenton limestone of Quebec (172204, exchange).

REED, WILBUR, Grangeville, Idaho: A beetle from Espiritu Santos, New Hebrides (172580).

REEDER, JOHN, Cambridge, Mass.: 6 specimens of grass from the southwestern United States (173097).

REHDER, Dr. and Mrs. HARALD A., Washington, D. C.: 550 mollusks, 1 spider, and a small collection of Crustacea from eastern Maryland and Delaware (171276).

REINHARD, Dr. E. G., Washington, D. C.: 2 specimens of a rhizocephalid, 16 amphipods, and 1 isopod (172075).

REISINGER, Mrs. MARY MCKEE. (See under Benjamin Harrison McKee.)

RENFRO, Mrs. J. H., Fort Worth, Tex.: 3 brachiopods from Pennsylvanian rocks at Kickipoo Falls, Tex. (172935).

RICKER, Dr. P. L., Washington, D. C.: 3 plants from the Shenandoah National Park (170813); double-cased, silver watch marked "Thos. Cartwright, London" (172776).

RICKETTS, E. F., Pacific Grove, Calif.: 36 shrimps, 11 schizopods, and 7 lots of barnacles (170809).

RIGGS, LAWRASON. (See under Mrs. James A. Wright.)

RILEY, JOHN C., Ayer, Mass.: 67 plants from Guadalcanal (171786).

RINGS, Lt. ROY W. (See under U. S. War Department, Fourth Service Command.)

RIPLEY, S. DILLON, Litchfield, Conn.: 85 bird skins from Ceylon (172159).

RIVERS, Commodore THOMAS M. (See under U. S. Navy Department, Naval Medical Research Unit No. 2.)

ROADS, KATIE M., Hillsboro, Ohio: 1 plant from Ohio (170971).

ROBERTS, H. R., Philadelphia, Pa.: 19 specimens of mosquito material from the Pacific Islands representing 4 species, 2 of them by 15 paratypes (172993).

ROBERTSON, GEORGE A., Richmond, Va.: (Through Wm. J. Stephenson) 3 invertebrate fossils of Devonian age from Helderberg limestone at Sinnit Cave, Pendleton County, W. Va. (near Sugar Grove) (171164).

ROCKEFELLER FOUNDATION AND THE CARLOS FINDLAY LABORATORY OF BOGOTÁ, Bogotá, Colombia: (Through Dr. Charles R. Anderson) 8 rodent skins and skulls from Colombia (171256).

International Health Division, Rio de Janeiro, Brazil: (Through Dr. Henry W. Kumm) 19 pinned adults and 41 slides of mosquito material (172752).

RODGERS, Capt. VERNON L., Winters, Tex.: Costume and hand-worked silver jewelry of a Bali woman of high rank; also an Acca woman's costume of blue cotton cloth, necklaces, decorative headdress, and basketry reticule, obtained by donor while stationed in the north sector of Southern Shan States, China (173383).

RODOCK, ROY E., Lewiston, Idaho: 14 bugs (171495).

ROEBLING FUND, Smithsonian Institution: 1 specimen of zincite from Franklin, N. J., weighing 12.32 carats (171075, part exchange); 1 enstatite, weighing 8.08 carats (171452); 1 chrysoberyl from Ceylon weighing 120.45 carats (171640); 3 mineral specimens from Mexico (172287); a collection of 10 minerals from the United States, England, New South Wales, Argentina, etc. (173110); specimen of diaboleite from Mammoth mine, Ariz. (173264). (See also under Ward's Natural Science Establishment.)

ROGERSON, CLARK T., Ogden, Utah: 173 plants from the Philippines (171236, 171506, 172234).

ROHRER, JOSEPHINE A., Washington, D. C.: An open-face gold watch, engraved "George Hhight, No. 7532" (172792).

ROLLER, JANE. (See under U. S. Department of Agriculture, Office of Foreign Agricultural Relations).

ROOSEVELT WILDLIFE FOREST EXPERIMENT STATION, Syracuse, N. Y.: (Through Wilford A. Dence) 2 mollusks from the Adirondack Mountains (172151).

ROSKE, MARGARET HAYDEN. (See under Textile Color Card Association of the United States.)

ROSENGURTT, Dr. BERNARDO, Estación Juan Jackson, Uruguay: 60 plants from Uruguay (171389, 172082, 172094, 173261); 41 plants from Uruguay (171604, 172735, exchange).

ROSS, Dr. EDWARD S., San Francisco, Calif.: 15 adult mosquitoes, representing 4 species, 2 of them by 7 paratypes, from the Pacific Islands (172994).

ROSS, Dr. HERBERT H. (See Illinois State Natural History Survey Division.)

ROTH, Capt. LOUIS M., A. P. O., San Francisco, Calif.: 5 slides of larvae and pupae of mosquitoes (171345); 49 slides of larvae, pupae, and adults of mosquitoes from Okinawa (171758); 63 mosquitoes from Okinawa (172354).

ROYAL BOTANIC GARDEN, Edinburgh, Scotland: 279 plants, chiefly from the British Isles (173273, exchange).

ROYAL BOTANIC GARDEN, Sibpur, India: 26 plants from Burma (173051, exchange).

ROYBAL, Prof. José, Monterrey, Nuevo León; 140 Mexican plants (172418, 173071).

ROZEBOOM, Lt. L. C. (See under Navy Department, Naval Medical Research Unit No. 2.)

RUBBER DEVELOPMENT CORP., Fortaleza-Ceará, Brazil: (Through Dr. Hugh C. Cutler) 13 ferns from Brazil (171086).

RUDD, VELVA E., Washington, D. C.: 1 plant (*Mimosa*) (171688).

RUNYON, ROBERT, Brownsville, Tex.: 26 plants from the United States (171001, 173089).

ST. LOUIS POST-DISPATCH, St. Louis, Mo.: 1 copy of the St. Louis Post-Dispatch rotogravure section, "Pictures," for August 12, 1945, claiming to be the first rotogravure reproduction of a color picture transmitted by radio; 1 duplicate copy (171235).

SALTER, W. E., Washington, D. C.: 1 mussell from the Anacostia River (171757).

SAMPSON, Prof. A. W., Berkeley, Calif.: 14 grasses from the South Pacific region (171501).

SANDERS, Dr. J. G., Washington, D. C.: 56 lots of insects collected in North Africa, Syria, Iraq, and Iran (170672); 24 specimens of fancy woods collected by donor at Fundo Sinchono, near Tingo María, Peru (171142).

SARGENT, F. H., Washington, D. C.: 2 plants from eastern United States (172132).

SAWAYA, Dr. PAULO, São Paulo, Brazil: 20 amphibians from Bertioga, São Paulo collected by donor (172663).

SCATTERGOOD, LESLIE W., Boothbay Harbor, Maine: 12 mollusks from Maine (172973).

SCHAUL, Mrs. MARIE LEVY, Coatesville, Pa.: Swords and miscellaneous relics of the period of the Civil War (172699).

SCHELLBACH, LOUIS. (See under U. S. Department of the Interior, National Park Service.)

SCHIEFER, Dr. HELEN, Bogotá, Colombia: 17 plants from Colombia (170867).

SCHOLS, H., Paramaribo, Surinam: 4 lots of gibbsite from Paramaribo (170798); 2 specimens of gibbsite, casts of roots or stems of grass or grasslike plants (171704).

SCHRAG, KARL, New York, N. Y.: 33 prints consisting of etchings in various combinations and 1 lithograph for special exhibition from October 29 through November 25, 1945 (171556, loan); 1 aquatint, "Solace," by the donor (172654).

SCHULTZ, JAMES B. (See under Dr. Carl L. Hubbs.)

SCHWARZ, CHARLES R., Milwaukee, Wis.: (Through Mrs. Robert W. Essex) 1 Thomson-Houston incandescent lamp and socket, marked "Pat. Mar. 5 01," socket marked on bottom, "B. E. Co. 15 N." (170757).

SCHWENGEL, Dr. JEANNE S., Scarsdale, N. Y.: 1 mollusk, paratype (171661); 1 mollusk from Japan (172314).

SCULLY, Dr. FRANCIS J., Hot Springs, Ark.: 85 plants from Arkansas 173157).

SEAMAN, ELWOOD A., Wheeling, W. Va.: 2 specimens of mosquito material from California (172390).

SEIBERT, Dr. R. J., Lima, Peru: 19 grasses from Peru (172515).

SEMPLE, ARTHUR T., Washington, D. C.: 7 plants from Tanganyika (171265); 11 grasses from Nicaragua (172778).

SEXTON, Mrs. E. W., Plymouth, England: 76 amphipods (172970, exchange).

SHANNON, RAYMOND C., Coral Gables, Fla.: 125 insects, 120 flies, and 5 Lepidoptera (160975, bequest).

SHAW, Lt. GEORGE F. (See under Corp. Robert B. Browne.)

SHEAR, Dr. C. L., Arlington, Va.: 200 Miocene mollusks from Maryland; 33 specimens of marine mollusks from Ireland; 6 invertebrate fossils and 4 pieces of petrified wood (170491).

SHEFFIELD CORP., Dayton, Ohio: A collection of 4 historic Sheffield precision gauges and accessories as follows: Precisionaire, 1940, Multichek, 1939, Visual, 1930, Electrichek, 1929, and 2 samples of 37-mm. shell parts such as measured by "Multicheck" at Frankford Arsenal (4 specimens) (170653).

SHELFORD, Prof. VICTOR E., Champaign, Ill.: A collection of insects (169989); 15 plants from the Great Basin region (171183).

SHENK, RICHARD W., Washington, D. C.: Specimen of fungus from the District of Columbia (173272).

SHEPPARD, Lt. RAYMOND R., Washington, D. C.: 67 ethnological specimens from Angel Island, off the north coast of New Guinea, collected by donor in 1944 (171945).

SHOEMAKER, CLARENCE R., Washington, D. C.: 1 Cape May warbler (171726).

SHOPE, Comdr. R. E., F. P. O., San Francisco, Calif.: 193 mollusks from Okinawa, Ryukyu Islands (170794).

SHROCK, Prof. ROBERT R., Cambridge, Mass.: 425 fossil invertebrates from Kentland Area, Indiana (172548); 250 fossil invertebrates from Europe, 60 specimens of Silurian fossils from Wisconsin, and 250 Devonian and Mississippian invertebrates from Mississippi and Alabama (172549).

SIDNEY, CEDRIC, Durham, N. C.: 87 ferns from Assam and Burma (172313).

SIGAFOOS, Mrs. ROBERT S., Columbus, Ohio: 54 plants from New Guinea (170627).

SIMON, Lt. JAMES R., Cheyenne, Wyo.: 338 fishes from the South Pacific (172063); 18 fishes from Okinawa (172728).

SIMPSON, Mrs. ROXIE C., Washington, D. C.: 5 birds (172129); 1 young cardinal (173269). (See also under Dr. C. S. Brimley.)

SIMPSON, Mrs. WALTER, Washington, D. C.: A late 18th-century, English, monochrome cotton print, hand-blocked in a classical, heraldic motif, using "pique" work or pinning, in the form of tiny dots, as a filler for small

background areas, which was an outstanding development of this period (170837).

SKINNER, WILLIAM, & SONS, New York, N. Y.: 7 specimens of all-nylon taffeta, twill, and satin fabrics, together with 3 applications, and 5 examples of wool-backed, viscose rayon poplin, serge, and satin materials (172805).

SLATTERY, R. G., Washington, D. C.: 4 more or less complete skeletons from the R. G. Mitchell site, located on the left bank of the north fork of the Holston River, ¼ mile north of the Nordyke Bridge, Washington County, Va. (171764); a miscellaneous lot of skull fragments and bones from Feurt site, located 5 miles north of Portsmouth, Scioto County, Ohio (171766).

SLATTERY, R. G., and HUGH STABLER, Washington, D. C.: Skeletal remains from the W. A. Walker site No. 1, on Selden Island (in the Potomac River), Montgomery County, Md. (171763); 3 skeletons from the W. R. Winslow site, located on the Maryland side of the Potomac River, just opposite Van Devanter Island, Montgomery County, Md. (171765).

SLUTZ, Mrs. EUGENE K., Huntington, W. Va.: An example of lacework, darning on net, typical of the 1830's, which was made at Point Pleasant, W. Va., by a member of the Roseberry family (171915).

SMALLWOOD, KEN MAYNARD, Fairfax, Va.: 1 saw-whet owl (171862).

SMITH, Dr. A. C. (See under Harvard University, Arnold Arboretum.)

SMITH, ALVIN, Laurel, Md.: 1 woodchuck from Laurel (170914).

SMITH, Prof. CHARLES PIPER, Saratoga, Calif.: 11 plants from California (170868, exchange).

SMITH, Mrs. GRACE CHAFFEE, Richford, Vt.: 1 squirrel skin used as a purse by great-grandfather of the donor (172477); 4 examples of needlework, period of 1849–1856, worked by Ursula Chaffee, of Berkshire, Vt., and her daughters Precinda and Matilda (173352).

SMITH, G. STACE, Creston, British Columbia: 2 beetles (171413).

SMITH, Dr. HUGH M. (deceased): 4 parasitic isopods (88796).

SMITH, Mrs. LUCY CRANWELL, Arlington, Va.: 4 grasses from New Zealand (171284).

SMITH, Dr. LYMAN B. (See under Harvard University, Gray Herbarium.)

SMITHSONIAN INSTITUTION, Washington, D. C.: 18 copper plates containing work in etching, aquatint, and drypoint by Charles W. Dahlgreen (170825); engraving in mezzotint of "Dobson's Father," by Valentine Green, after the painting by William Dobson (171200); embroidered white silk-crepe shawl, obtained from Canton, China, about 1850 and bequeathed to the Smithsonian Institution by Bertha M. Robbins (171419); porcelain cup and saucer made at Swansea, Wales, about 1820 (171559). Deposit.

Bureau of American Ethnology: 1 elk-horn quirt, obtained from the Pawnee Indians near Columbus, Nebr., about 1870, by Dr. Elon J. Lawton of Rome, N. Y. (171677).

National Museum, collected by members of the staff: Foshag, Dr. W. F.: 487 specimens of minerals, rocks, and ores, from various districts of Mexico (172387); Morrison, Dr. J. P. E.: 60 bird skins, 1 bird in alcohol, 2 bird eggs, and 9 mammals from Bikini Atoll, South Pacific, collected on Crossroads Project (172309); Wedel, Dr. Waldo R.: Archeological materials collected in 1940 through excavations in proto-historical village sites in Rice and Cowley Counties, Kans., with small surface collections from other sites in Oklahoma and Nebraska; also two molluskS (168599); Wetmore, Dr. Alexander: 10 specimens of minerals and rocks from the Pearl Islands, off Panama (171831); Wetmore, Dr. A., and J. E. Graf: 2 birdskins, 1 rattlesnake, 10 plants, 8 mammals, 700 insects, and a small collection of miscellaneous insects, 9 mammals, 3 birds, and 4 salamanders from the Shenandoah Valley, Va. (171050, 171231); Wetmore, Dr. A., and W. M. Perrygo: 637 bird skins, 2 bird skeletons and alcoholics, 1 set of bird eggs, and 1 nest, mammals and echinoderms, all collected in Darién, Panama, March–April 1946 (172120).

National Museum, obtained by purchase: Seamless, single-weave, jacquard coverlet having blue-dyed cotton warp and dyed-wool weft of red, blue, and olive-green, woven in 1847 by H. & A. Seifert, Mechanicsburg, Cumberland County, Pa., for Daniel Baker (1821–1905) of Church Town, Pa. (170812); 94

plants from Venezuela, collected by Capt. F. Cardona (171281); 25 North American mosses (171552); 3 mounted skins of fishes (171651); 2 mounted skins of fishes (172399); 100 plants from St. Lucia (172620); a vertical, chairlike, 2-spindle flax wheel with double-treadle drive (172702); collection of 570 mounted diatom slides and 20 samples of cleaned diatom material (172715); 300 plants from Dominica and Grenada (173193); oil painting by Kate T. Cory of the Hopi Indian "Sun Ceremony—the planting of the feathers by the whole village to the sun at the time of the winter solstice" (173351); 2,400 photographs of plants in European herbaria (173357).

National Museum, made in Museum laboratories: Landscape model of the first iron truss railroad bridge in America (1845), showing a portion of the Philadelphia & Reading Railroad near Manayunk, Pa. (171648).

National Museum, Division of Birds: 121 lithographs and engravings of birds, including prints after Audubon, Hergenroeder, and Gabler (170817); 25 specimens of lice in 5 species, combed from bird and mammal skins in the Museum collections, which have been studied by F. L. Werneck, 2 species represented by types, one also having the allotype (172233).

National Zoological Park: 11 mammals (172395); 8 birds (172483); 1 snake (172753).

SOPER, JAMES H. (See under Canadian Government, Department of Agriculture.)

SORENSEN, A., Pacific Grove, Calif.: 39 mollusks from Midway Island (170240); 2 crabs (170614); 8 mollusks from the Kwajalein Atoll, Marshall Islands (171114); a collection of Crustacea from the west coast of Mexico (173206).

SOUKUP, Dr. J., Lima, Peru: 94 plants from Peru (170728, 171793, 173119).

SOUTH AFRICA DEPARTMENT OF AGRICULTURE, *Botanical Station*, Durban, South Africa: (Through Helena M. L. Forbes) Seeds of a palm (172888).

SOUTH AUSTRALIAN MUSEUM, Adelaide, South Australia: (Through Dr. Herbert M. Hale) 2 fishes from Port Willungua, Australia (171000, exchange).

SOUTHERN CALIFORNIA, UNIVERSITY OF, *Allan Hancock Foundation*, Los Angeles, Calif.: (Through Dr. Irene McCulloch) About 440 specimens of marine algae from the Allan Hancock Expeditions to the Galápagos Islands (170722, exchange).

SOUTHERN METHODIST UNIVERSITY, Dallas, Tex.: 508 plants, mostly from Texas (173113, exchange).

SOUTHERN RHODESIA, NATIONAL MUSEUM OF, Bulawayo, Southern Rhodesia: (Through Dr. George Arnold) 43 ants, representing 12 species, 3 of which are represented by 7 paratypes (171377).

SOUTHWEST MUSEUM, Los Angeles, Calif.: 2 leaves of an astrological manuscript in Tamil incised on prepared sections of palm leaf (172060).

SOUTHWORTH, CHARLES, Thedford, Ontario: 700 Middle Devonian brachiopods from southwestern Ontario (172428).

SPRINGER FUND, Smithsonian Institution: 6 Middle Ordivician crinoids from Ontario (172194); 4 Devonian crinoids from Sylvania, Ohio (172884).

STABLER, HUGH. (See under R. G. Slattery.)

STABLER, SYDNEY SNOWDEN, Hyattsville, Md.: A Babcock milk tester made by the Vermont Farm Machine Co., Bellows Falls, Vt., and used about 1885 at Brighton Farm, Patuxent River, Montgomery County, Md., by the donor's father (173353).

STANFORD UNIVERSITY, Stanford University, Calif.: 5 mollusks (172760); 255 ferns from Ecuador (171146, 172495, 172831, exchange); (through Dr. Albert W. Herre) 33 paratypes involving 6 species of fishes from the Philippines and India, collected by Dr. Herre (171582); (through Mrs. Roxana S. Ferris) 408 plants, mostly from the Sonoran Desert region (172936, exchange).

STARK, ROBERT J., Grapevine, Tex.: 1 gastropod from Palo Pinto County, Tex. (172072); 32 gastropods from the Pennsylvanian, south of Santo, Palo Pinto County (172492).

STEARNS, Dr. H. T., Honolulu, Hawaii: Skull and lower jaw from an Indian mound near Lodi, Calif., and a damaged skull from Lanai, Hawaii (172376).

STEBBINS, Dr. G. LEDYARD, Jr., Berkeley, Calif.: 46 grasses from California (171984).

STEERE, Lt. RUSSELL L., Ann Arbor, Mich.: 263 plants from Guam (172231).

STEERE, Dr. WILLIAM C. (See under Foreign Economic Administration.)

STEHLÉ, Dr. H., Fort-de-France, Martinique: 200 plants from Guadeloupe and Martinique (170799); a collection of miscellaneous insects and 2 reptiles from Martinique (171004); 13 lizards and 1 crab from Hots des Saintes, Terre de Haute (171744).

STEIDEMANN, T/4 ROBERT E., A. P. O., San Francisco, Calif.: 46 plants from Okinawa (172470).

STEPHENSON, WILLIAM J. (See under George A. Robertson.)

STERLING, RICHARD T., Washington, D. C.: 1 mollusk from Casco Bay, Maine (172386).

STEVENS, Dr. BELLE A. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

STEWART, Mrs. W. W., Washington, D. C.: 1 mounted deer head (172551).

STIRLING, MATTHEW W., Washington, D. C.: A collection of reptiles and amphibians, fish, a mammal, marine invertebrates, and insects from Piedra Parada, Chiapas, Mexico, made in March, April, and May 1945 (170571); a collection of reptiles, amphibians, fishes, insects, and 1 crab from San Lorenzo, Veracruz (173104).

STONE, BENTON, Negritos, Peru: 51 specimens of Upper Cretaceous Foraminifera (173094).

STOVER, Lt. (jg) J. H., F. P. O., San Francisco, Calif.: 6 snakes from Okinawa collected by the donor on May 20, 1945 (170800).

STYRON, SADE C., Washington, D. C.: A camera, Tele-Photo Cycle Poco, about 1896, an exposure meter, a ray filter, and a portrait lens (172639).

SUMNER, Mrs. MARGARET E., La Jolla, Calif.: An appliqued garment formerly worn by a Sudanese follower of the Mahdi, collected in 1899 by the late Dr. F. B. Sumner (173382).

SWALLEN, J. R., Washington, D. C.: 128 plants from Brazil (170827).

TANNER, Dr. VASCO M., Provo, Utah: 6 frogs from Provo, Utah County, Utah, collected in September 1944 by the donor (170936).

TAYLOR, Mrs. A. R., Arlington, Va.: A Jeffreys' oral respirator (172397).

TAYS, GEORGE. (See under Hugo Gunckel.)

TEICHERT, Dr. CURT, Melbourne, Victoria: 65 plates of a peculiar fossil crinoid from the Permian of West Australia (172751).

TEXAS, UNIVERSITY OF, Austin, Tex.: (Through Dr. A. Packchanian) 1 insect (171700); 35 plants (171778, 172133, exchange); (through Fred A. Barkley) 78 plants from Colorado and Texas (172961, 173289).

TEXTILE COLOR CARD ASSOCIATION OF THE UNITED STATES, INC.; New York, N. Y.: (Through Margaret Hayden Rorke) 2, 1946 fall-season color cards of America, one containing woolen swatches in winter tints, autumn pastels, and colors of the tropics, the other a rayon collection featuring "Holiday Hues" and "Jewels of the Orient" colors (173277); 2 1945 fall-season color cards of America, one containing woolen swatches in overtones and pastels, the other a rayon collection featuring Chinese dynasty colors, also a folder of VE-day service colors (170864).

THATCHER, T. O., Berkeley, Calif.: (Through Dr. J. Stewart Williams), Cambrian echinoderm from mouth of Antelope Spring Canyon, House Range, Millard County, Utah (172289).

THOENES, JOHN W., St. Louis, Mo.: 21 plants from the Aleutian Islands (171881).

THOMAS, JAMES H., Oneonta, N. Y.: 5 pictorial photographs (172623).

THOMAS, Dr. W. B. S., Dover-Foxcroft, Maine: 13 fossil fishes, found 100 miles up Sundrastrom Fiorde on the west coast of Greenland at the Arctic Circle (172975).

THOMAS, Maj. WILLIAM B. S., Washington, D. C.: (Through Capt. C. Brooke Worth) 268 miscellaneous insects, including about 200 mosquito larvae and 23 Lepidoptera from Okinawa; 20 adult mosquitoes and 1 fish from Ulithi; and 1 snake from Tinian (171334); a small collection of miscellaneous insects, centipedes, and spiders; fishes; marine invertebrates; salamanders, lizards, and snakes; mollusks; birds; mammals; 2 wooden saddles and 1 straw mat, all from Okinawa (171912).

THOMPSON, Capt. G. A., Miami, Fla.: 25 mosquitoes, representing 4 species, including adults of both sexes and larval and pupal skins (172014). (See also under Federal Security Agency, Public Health Service.)

TIDD, Dr. WILBUR M., Columbus, Ohio: 15 amphipods from Ohio (171391). (See also under Ohio State University, Department of Zoology.)

TITTERINGTON, Dr. P. F., St. Louis, Mo.: Approximately 430 specimens of Indian skeletal remains from various counties in Illinois, Arkansas, and Missouri, together with X-ray plates of selected skulls from this collection made by Dr. Sherwood Moore (169839); skeletal material from Calhoun, Jersey, and St. Claire Counties,

Ill., collected during 1945 (171328); portions of 3 skulls and a few long bones from Calhoun County, Ill. (172356).

TITTLE, WALTER, Danbury, Conn.: 25 drypoint portraits by the donor of statesmen at the Conference on Limitation of Armaments held in Washington, D. C., 1921–1922 (172653).

TOBLER, ERNST & TRABER, INC., New York, N. Y.: A collection of 139 study samples of Swiss bolting cloth, representing different grades and meshes, manufactured from Italian raw silk by Dufour & Co. (171278).

TOLMAN, RUEL P., Washington, D. C.: 14 etchings, 4 drypoints, and 1 lithograph by Ruel P. Tolman and 1 aquatint, "Cromwell at the Coffin of Charles I," engraved by George Maile after the painting by Paul Delaroche (172067).

TOMÁS, Brother ALBERTO, Salamina, Colombia: 92 plants from Colombia (170725, 171280).

TORRE, Dr. CARLOS DE LA, Marianao, Cuba: 49 Cuban land shells (172518).

TOWNES, Dr. H. K., Washington, D. C.: 3 amphipods and 6 crayfishes (171532). (See also under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

TREASURY DEPARTMENT. *Bureau of the Mint*, Washington, D. C.: Peary Polar Expedition Medal, 1908–1909 (168637); 30 United States coins struck at the Denver, Philadelphia, and San Francisco mints in 1945 (172711).

Bureau of Customs, Washington, D. C.: (Through G. H. Griffith) 4 mounted birds from Italy (171294); (through Procurement Division), 3 cut aquamarines, weighing 73.50, 13 and 11.15 carats; 1 cut amethyst, weighing 31.85 carats; and 1 cut green tourmaline weighing 10.20 carats, from Brazil (171598); 1 blue cut topaz and 2 pear-shaped emeralds (171968).

Procurement Division. (See under Treasury Department, Bureau of Customs.)

TREY, DAVID G., College Park, Md.: 20 plants from Idaho and Washington (171155).

TUERK, Capt. MILTON, A. P. O., New York, N. Y.: 14 plants from Burma (170802, 171433).

TURNPAUGH, W. S., Monterrey, Nuevo León: 1 spider (171132).

TWENTY-FOURTH CORPS, U. S. Army, A. P. O., San Francisco, Calif.: (Through Lt. Gen. John R. Hodge) Japanese Shinto sword with ceremonial hilt and cloth trappings (172742).

ULKE, Dr. TITUS, Washington, D. C.: 2 plants from Maryland (172397); 3 ferns from Virginia (173280); 1 plant (173354); 2 plants from the District of Columbia and Virginia (173040).

UNDERWOOD, Mrs. H. W. (See under Mrs. Calvin Coolidge.)

UNDERWOOD, Mrs. P. O., Detroit, Mich.: Types of 3 species of mollusks, including a new genus (6 specimens) (171460).

UNITED STATES OF AMERICA TYPHUS COMMISSION, Washington, D. C.: 7 rats from the Philippines, forwarded by Lt. Col. Cornelius B. Philip (170631); 1 bat, 2 shrews, and 14 rodents from the Philippine Islands (170876); 77 birds and 33 mammals from Burma (170943); 42 mammals from Burma (170949); 1 shrew and 7 rats (171149); 10 bird skins, 10 bird skeletons from Montana; mammals; reptiles and amphibians; insects, mites, etc. (171223); 3 turtles, 6 snakes, and 7 lizards; 296 small mammals: 82 birds from Burma, India, and China (171678); large collection (3,108 specimens) of plants from Burma and Assam (171833); 13 rodents (3 adult and 10 young) collected by Lt. Col. Cornelius B. Philip (171920); (through Dr. Wm. L. Jellison and the Federal Security Agency, U. S. Public Health Service, Hamilton, Mont.) a collection of miscellaneous insects, snakes, and fishes from Assam and Burma (172701); (through Lt. Col. Cornelius B. Philip) 13 slides of mites from Japan and the Philippine Islands, representing 11 species, including the type and paratypes of 2 new species (172804).

URQUHART, Dr. F. A. (See Canadian Government, Royal Ontario Museum of Zoology.)

UTAH STATE AGRICULTURAL COLLEGE, Logan, Utah (Through Dr. George F. Knowlton): 1 type slide of a species of aphid (172205).

VAIDEN, M. G., Rosedale, Miss.: 2 song sparrows (172481).

VAIL, RICHARD. (See under Robert Waskey.)

VANCE, Capt. DEANE H., Washington, D. C.: Earthenware jar from the Pueblo of Zuni, found by donor's father, Joseph R. Vance, in the Mesa Verde about 1880 (171670).

VAN EMDEN, Dr. FRITZ, London, England: 9 beetle larvae, representing 6 species, all new to the collections (152061).

VAN SCHAACK, Lt. GEORGE B., West Coxsackie, N. Y.: 500 plants from Attu Island (171630).

VARGAS, Dr. CESAR, Cuzco, Peru: 50 plants from Peru (172497).

VARGAS, Prof. JESÚS MENDOZA, Veracruz, Veracruz: 20 land shells from Veracruz (171323). (See also under Mexican Government, Oficina Fitosanitaria.)

VARGAS, Dr. LUIS, Anahuac, D. F., Mexico: 34 flies, all paratypes (171346).

VASTINE, Estate of Dr. HARRY M., Harrisburg, Pa.: (Through Mrs. Leon Klepper and Dr. Riley D. Moore) A framed typewritten copy of a speech on "Immortality," delivered on May May 24, 1912, by Dr. A. T. Still, founder of osteopathy (170788).

VAUGHAN, Dr. GEORGE TULLY, Washington, D. C.: A combination knife-fork implement used by an amputee, William Henry Thelwall, a Confederate soldier of the Civil War (172522).

VAUPELL, C. W., Mexico, D. F.: 1 specimen of livingstonite and 1 of scheelite and cuproscheelite from Mexico (172389).

VERRILL, A. HYATT, Lake Worth, Fla.: 5 crabs, 1 stomatopod (170592).

VERROW, HAROLD J., Hartford, Conn.: 1 specimen of knebelite from Long Mountain, Stark, N. H. (170804).

VIKEN, A. J., Manhasset, Long Island, N. Y.: 1 4-x-5 Eastman magazine plate camera of 1887 and 1 volume of panorams of the estate of Mrs. George D. Pratt at Glen Cove, Long Island (171583); a mounted enlarged photograph of the old Slater Mill, Pawtucket, R. I., and 2 small prints, 1 from the original negative taken by the donor on January 20, 1945, the other after retouching to remove the present surrounding buildings from the landscape; also 2 small prints of the bronze plate now on the door of the Old Mill (171742); 1-Scovill View Camera, 5-x-8–1885, 1–B&L rectilinear lens in Unicum shutter; 2 5-x-8 plate holders; 2 circular negatives from Detective camera; 3 prints from circular negatives; 1 enlargement from circular negatives (171985).

VIRGINIA, UNIVERSITY OF, *Blandy Experimental Farm*, Boyce, Va.: 6 grasses from Virginia (171591).

VITALIANO, CHARLES J., Gabbs, Nev.: 2 crystalline greenish brucite specimens from Gabbs (171077).

VOGT, Lt. GEORGE B., Catonsville, Md.: 13 mosquito specimens (171759).

VOGT, WILLIAM, Washington, D. C.: 1 mollusk from Laguna de San Rafael, Chile (172230).

VOKES, Dr. H. E., Baltimore, Md.: 250 Pennsylvanian invertebrate fossils from near Moab, Utah (171412).

VON BONDE, Dr. CECIL, Cape Province, South Africa: 500 copepods (172700).

WAGNER, Lt. (jg) WARREN H., Jr., Washington, D. C.: 84 ferns from the South Pacific region (171554); 2 ferns from Virginia (172131); 1 fern from Hawaiian Islands (172346); 2 plants from Maryland (172460); 1 fern (172553); 18 plants from Kwajalein Atoll (172734); 42 ferns from the Pacific Islands (172757); 2 ferns (172806).

WALCOTT FUND, CHARLES D., Smithsonian Institution: 2,100 fossil mollusks from the Lord Calvert collection (160498); 400 blocks of Permian limestone containing silicified invertebrate fossils and 500+ invertebrate fossils from the Permian of the Glass Mountains and 5,000+ invertebrates fossils from Devonian, Mississippian, and Pennsylvanian rocks of central Texas, collected for the Museum by Dr. G. Arthur Cooper and Dr. J. Brookes Knight (170496, collected for Museum); approximately 5,000 Ordovician invertebrate fossils collected by Dr. G. Arthur Cooper and Dr. Byron N. Cooper in Virginia, Tennessee, Alabama, and Georgia (172055); approximately 5,000 specimens of Mississippian and Pennsylvanian invertebrate fossils from the central uplift of Texas, collected by Dr. G. Arthur Cooper (172710); 32 Devonian brachiopods and 4 pelecypods from Sylvania, Ohio (172883).

WALKER, Dr. B. H., Washington, D. C.: 2 plants from District of Columbia and vicinity (172455).

WALKER, J. B., Washington, D. C.: 12 plants from Texas (173179).

WALLACE, Capt. CECIL T., Washington, D. C.: A collection of 21 pearls from White River (near Roe), Ark., collected in 1935 (170886).

WALLING, Mrs. MARIE STERN, St. Paul, Minn.: (Through Dr. Riley D. Moore) 5 specimens dealing with the early history of osteopathy in Minnesota and Iowa (170787).

WAR DEPARTMENT, *Army Medical Center*, Washington, D. C.: (Through Capt. C. Brooke Worth) A small collection of natural-history material comprising insects, mollusks, reptiles, 4 fishes and invertebrates, 3 mice, and echinoderms collected by Maj. William B. S. Thomas on Okinawa Island (171505); 4 bats taken in building at Army Medical Center by Capt. C. Brooke Worth,

MC, August 8, 1945 (171063); 1 house mouse, insects, reptiles, and marine invertebrates from Oahu (171520).

Army Medical Museum, Washington, D. C.: 1 rat (170575); 1 civet and 4 rats, from the 31st Malaria Survey Detachment, Philippines (170629); 43 rats from the Philippines, forwarded by 31st Malaria Survey Detachment (170630); 21 rats and 1 shrew forwarded by Capt. Carl O. Mohr from the Philippine Islands (170714); 41 rats and mice, forwarded by the 217th Malaria Survey Detachment from the Marianas Islands (170761); 7 rodents from New Guinea, forwarded by the 19th Medical General Laboratory (170877); 1 civet cat forwarded by Capt. Carl O. Mohr (170902); 21 small mammals from the Philippine Islands, forwarded by Lt. Howard A. Bern (171048); 61 rodents collected by T/5 Dwain W. Warner (171055); 10 rats from the Philippines, forwarded by Capt. Carl O. Mohr (171112); 14 small mammals collected in the Philippines, forwarded by Capt. Floyd J. Brinley (171113); 350 fresh-water gastropods collected by Maj. Harry J. Bennett in Mindanao, Philippine Islands (171135); 1 rodent forwarded by T/4 J. J. Bordenave (171141); 7 rats, 1 mouse, and 2 shrews forwarded by Capt. Donald J. Pletsch (171202); 7 rats and 5 shrews forwarded by Capt. Floyd J. Brinley, 207th Malaria Survey Detachment (171331); 18 small mammals forwarded by Lt. Howard A. Bern, Headquarters, 32d Malaria Survey Detachment (171332); 70 small mammals, forwarded by Capt. Harry Hoogstraal, 19th Medical General Laboratory, AFWESPAC (171351); 42 small mammals forwarded by Capt. Carl O. Mohr, 211th Malaria Survey Detachment (171352); 37 bats, 2 rodents, forwarded by Capt. Carl O. Mohr, 211th Malaria Survey Detachment (171351); 42 small mammals forwarded by Capt. Wayne L. Howe, 31st Malaria Survey Detachment (171392); 2 rodents forwarded by Capt. Carl O. Mohr (171611); 2 rodents, mites forwarded by 423d Malaria Survey Detachment (171686); 26 rodents, 8 bats, 94 birds, parasites, and insects (171749); 47 small mammals (171750); 7 rats, 4 bats, and 52 birds (171846); 5 rodents forwarded by 25th Malaria Control Detachment (171955); 11 bird skins from Saipan (171973); 17 rodents, 32 birds, and 5 vials of ectoparasites forwarded by Capt. Joe T. Marshall, Jr., SnC. (172154); 6 rats forwarded by Capt. Henry H. Richardson, SnC. (172430); 11 small mammals from Camp Crowder, Mo. (172626); 378 specimens of mosquito material from France (173095); 45 rodents and 1 bird forwarded by the 218th Malaria Survey Detachment (172819); small collection of flies collected at Hollandia, Netherlands New Guinea, and at Palo, Leyte, Philippine Islands, during 1945, by 19th Medical General Laboratory entomologists (173377); (through Maj. H. A. Davis) 1 fish from tidal pool of coral reef, collected at Okinawa, June 24, 1945 (171053); 4 snakes from Hamahika-shima, Okinawa, collected on May 17, 1945, by Maj. Harvey G. Taylor (171125); 7 fishes, 11 geckos, 12 skinks, 26 crabs, 2 hermit crabs, 1 hippa, 5 amphipods, 2 shrimps, 1 sipunculid, 2 leeches, 1 polychaet worm, 1 seacucumber, 1 echinoderm, 4 insects, and 45 mollusks (171297); 2 snakes, 1 burrowing lizard, and 1 gerbil from Ahwaz, Iran, collected by Lt. Samuel Pollock, 19th Station Hospital (171364); 10 frogs and 3 snakes from Leyte, Philippine Islands, collected by Capt. Donald J. Pletsch (171388). (See also under War Department, 19th Medical General Laboratory.)

Army Medical School, Washington, D. C.: 94 mollusks and 1 leech (171748).

Eighteenth Medical General Laboratory, A. P. O., San Francisco, Calif.: Collection of crustaceans, reptiles, amphibians, and mollusks from the Philippines and Marianas (171519); 13 specimens of mosquito material (171621).

Eighth Service Command, Fort Sam Houston, Tex.: (Through Maj. Theodore A. Olson) 6 beetles from Texas (171096).

Fourth Service Command Medical Laboratory, Fort McPherson, Ga.: (Through Capt. Virgil I. Miles) 83+ flies (172452); through Lt. Roy W. Rings, Sn. C.) 1 mosquito collected at Hunter Field, Ga. (172650).

Frankford Arsenal, Philadelphia, Pa.: Display case containing 118 specimens of United States small arms ammunition (171016).

Military Intelligence Service, Washington, D. C.: Japanese free balloon launched in Japan and landed in the United States in 1945 (171557).

Nineteenth Medical General Laboratory, A. P. O., San Francisco, Calif.: (Through Army Medical Museum) 150 specimens of mosquito material comprising 36 males, 46 females, 68 larvae, representing 7 species of which 4 are represented by 3 allotypes and 4 holotypes, collected by Lt. Col. W. V. King and Capt. Harry Hoogstraal in the Philippines (171550).

Office of the Quartermaster General, Washington, D. C.: 66 study samples of various textile fabrics, etc. (172295).

Office of the Surgeon General, Washington, D. C.: 1 monkey from the Philippine Islands (170634); (through Lt. Col. O. R. McCoy) 42 mollusks from the Malir River at Karachi, India (171115); 27 freshwater mollusks from Hunan Province, China (171151); (through Lt. Col. Gaylord W. Anderson) 73 freshwater shells from China (171526); 72 mollusks, including type (171572); 1 Philippine monkey skeleton (172180); (through Lt. Col. W. V. King and Capt. Harry Hoogstraal) 183 specimens of mosquito material from the Philippine Islands and New Guinea (172451); (through Lt. Col. W. V. King) 20 specimens of mosquito material representing 3 species by types, the others all paratypes; 5 genitalic slides, 1 larval slide (172290).

Ordnance Department, Washington, D. C.: Model of United States Army truck, class B, 3–5 ton, model 1917 (173286).

Philadelphia Quartermaster Depot, Philadelphia, Pa: United States Army insignia of World War II (172213).

Two hundred twenty-second Malaria Survey Detachment, A. P. O., San Francisco, Calif.: (Through Capt. Frank N. Young, Jr.) 45 flies (171148).

Topographic Models Section, Office of Strategic Services, Washington, D. C.: Topographic maps of World War II (171937); 18 photographs of military maps of World War II (172941).

WARD, Estate of HENRY B.: (Through Charlotte B. Ward) 8,000 lots of helminths (171707).

WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.: 1 specimen of crytolite from Ambatofotsy, Madagascar, and 1 specimen of zunyite from Arizona (170767, exchange); (with cooperation of Roebling Fund) 6 descloizite and one pollucite mineral specimens from Southwest Africa (172001, gift, exchange).

WARFEL, HERBERT E., New Haven, Conn.: 20 cladocerans, 75 copepods (171600).

WASHINGTON, UNIVERSITY OF, Seattle, Wash.: (Through Dr. C. Leo Hitchcock) 1,110 plants from Idaho and Montana (170721, 172886, exchange).

WASHINGTON UNIVERSITY, St. Louis, Mo.: (Through Dr. Courtney Werner) 1 rare brachiopod from the Pennsylvania rocks of St. Louis County, Mo. (171979, exchange).

WASKEY, ROBERT, Frankfort, Ind.: (Through Alfred Wilson and Richard Vail) Specimens of cassiterite, tantalite, and columbite from Kalima, Maniema District, Belgian Congo, and a specimen of lepidolite from near Coolgardie, Western Australia (7 specimens in all) (171639).

WEBER, JAY A., Miami, Fla.: 50 mollusks from Florida (167494); 1 king rail (170603).

WEBSTER, DWIGHT A. (See under Cornell University.)

WEDEL, Dr. WALDO R. (See under Smithsonian Institution, National Museum.)

WEISS, Mrs. SOPHIE HEBERTON. (See under Estate of Sophie P. Casey.)

WELLS, ISABELLA C. (See under estate of Mary Louis Frederick.)

WERNER, Dr. COURTNEY. (See under Washington University.)

WESTBROOK, Mrs. LOUISE C. (See under Mrs. Estelle Randall Carlin.)

WETMORE, Dr. A., Washington, D. C.: 2 white-footed mice collected in Shenandoah National Park, Va. (170887); 53 birds from Virginia (171580, 173347); photograph of George Charles Champion, English entomologist (1851–1927) (171884); 7 bird skins (172128); 1 winter wren (172291). (See also under Smithsonian Institution, National Museum.)

WETZEL, J. B., Seat Pleasant, Md.: 1 osprey (171198).

WHARTON, Lt. GEORGE W., H(S), U. S. N. R. (See under Navy Department, Naval Medical Research Unit No. 2.)

WHATLEY, JOHN, Bowdon, Ga.: A "Quaker sewing machine" patented in 1858 (148206).

WHITCOMB, Prof. LAWRENCE, Bethlehem, Pa.: 73 Middle Ordovician brachiopods from Pennsylvania (172353).

WHITE, Mrs. ELIZABETH J. (See under Quota Club International, Inc.)

WHITE, Brig. Gen. THOMAS D., Arlington, Va.: 153 fishes and some mollusks and shrimps from Saipan and Leyte (171529).

WHITESELL, WOOD, New Orleans, La.: 58 pictorial photographs exhibited during May 1946 (173078, loan).

WIGGINS, Prof. IRA L. (See under Foreign Economic Administration.)

WILLAUER, Mrs. WHITING, Arlington, Va.: Cotton "Liberty" quilt made in Connecticut about 1800 by Hannah Thomson and taken to Dayton, Ohio, by prairie schooner when the Thomson family migrated (183386, loan).

WILLIAMS, C. C., Friendship, Maine: 1 carved black horn spoon, obtained in the Aleutian Islands in 1888 by the donor's father, a naval officer on the *Albatross* (171249).

WILLIAMS, FRITZ H., Benton, Ill.: 108 marine mollusks from Eniwetok, Marshall Islands (171524).

WILLIAMS, Dr. J. STEWART. (See under T. O. Thatcher.)

WILLIAMS, Dr. L. O. (See under Harvard University, Botanical Museum.)

WILLIAMS, Mr. and Mrs. MILO W., Sarasota Bay, Fla.: Collection of marine invertebrates, insects, echinoderms, fish, and mollusks from Sarasota Bay (167697).

WILLIAMS, Mrs. NORMA C., Falls Church, Va.: Collection of North American birds' eggs (172535).

WILLIM, REM. PEDRO, Colonia Nueva Italia, Paraguay: 1 skin of Argentine tanager (172736).

WILSON, ALFRED. (See under Robert Waskey.)

WILSON, Dr. Alice E. (See under Canadian Government, Geological Survey.)

WILSON, CHARLES B., Miami, Okla.: 29 lithographs by Charles B. Wilson, for special exhibition, January 7 through February 3, 1946 (171987, loan); lithograph by the donor entitled "Freedom's Warrior" (172561).

WILSON, LAURENCE L., A. P. O. San Francisco, Calif.: 2 flint flakes found in gravels of Zambezi River near Livingstone, Northern Rhodesia, Africa (171067).

WINSTON, J. M. (See under U. S. Maritime Commission.)

WISCONSIN, UNIVERSITY OF, Madison, Wis.: 3 mollusks (170892); 65 lichens from the United States (171866); (through Dr. Norman C. Fassett) 51 plants, mostly from the United States (172108). All exchange.

WISE, FRANCIS A., Tucson, Ariz: 1 specimen of diaboleite from Mammoth mine, Tiger, Ariz. (173167).

WOLF, Rev. Father, St. Bernard, Ala.: 1 hybrid oak from Alabama (171645).

WOLFE, Col. L. R., Washington, D. C.: 7 eagle skins from Manchuria (172583).

WOLFF, Capt. ALBERT E. (See under Juan Ivan Cueva.)

WOODRUFF, Lt. Col. CHARLES E. (deceased): (Through Mrs. C. M. Perkins) Baskets, fur shirts, pipes, and bow and arrow collected by the donor in 1890 from the Hupa Indians on their California reservation; also miscellaneous ethnological specimens from the Plains Indians and from the Philippine Islands (173350).

WORTH, Capt. C. BROOKE, Washington, D. C. (See under War Department, Army Medical Center, Lt. Theodore Downs, and Maj. Wm. B. S. Thomas.)

WRIGHT, Mrs. JAMES A., New York, N. Y.: (Through Lawrason Riggs) Oil portrait of Capt. John Lee Davis by Nathan Hughes, and a water color drawing of the U. S. S. monitor *Montauk* by A. C. Stuart (149313).

WRIGHT, Mrs. JENNIE WARRICK, Rock Island, Ill.: 1 sanding box used for drying ink on quill-written manuscripts (172634).

WRIGHT, M. K. (See under Baldwin Locomotive Works.)

WYGODZINSKY, Dr. PETR, Rio de Janeiro, Brazil: 7 insects (173281, exchange).

WYOMING, UNIVERSITY OF, Laramie, Wyo.: (Through Prof. C. L. Porter) 257 plants from Oklahoma, Colorado, and Wyoming (172602, exchange).

YALE UNIVERSITY, *School of Forestry*, New Haven, Conn.; 4 specimens of tropical American woods (172251, exchange).

YOUNG, Dr. FRANK N., Jr., Gainesville, Fla.: 500 specimens of Lepidoptera from Florida and Mexico (173205). (See also under War Department, 222d Malaria Survey Detachment.)

YU-TSENG, Dr. HSI, Beltsville, Md.: 1 plant (172619).

ZARROW, Lt. M., A. P. O., San Francisco, Calif.: 1 pipefish, 1 sea snake, and a small collection of insects (170759).

ZETEK, JAMES, Balboa, Canal Zone: About 200 mollusks from Panama (170797).

ZIESENHENNE, Lt. Comdr. FRED C., F. P. O., San Francisco, Calif.: 18 marine shells from the Caroline Islands (171214); 26 crabs, 6 hermit crabs, 1 fish, 3 starfishes, 3 sea-cucumbers, mollusks (171437); 8 crabs, 3 sea-cucumbers, 3 sea-urchins, 5 starfishes (171565); 22 hermit crabs collected on Cocos Island, September 1945 (171719).

PUBLICATIONS ISSUED BY THE UNITED STATES NATIONAL MUSEUM DURING THE FISCAL YEAR 1945–46

REPORTS

Report on the progress and condition of the United States National Museum for the year ended June 30, 1944. 8vo, iii+100 pp. January 5, 1946.

Report on the progress and condition of the United States National Museum for the year ended June 30, 1945. 8vo, iii+112 pp. June 28, 1946.

BULLETINS

Bulletin 185, part 4. Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. Compiled by Richard E. Blackwelder. 8vo, pp. 551–763. May 13, 1946.

Bulletin 186. The birds of northern Thailand. By H. G. Deignan. 8vo, v+616 pp., 4 maps, 9 pls. September 17, 1945.

Bulletin 187. An annotated checklist and key to the snakes of Mexico. By Hobart M. Smith and Edward H. Taylor. 8vo, iv+239 pp. October 5, 1945.

Bulletin 188. The fresh-water fishes of Siam, or Thailand. By Hugh M. Smith. 8vo, xi+622 pp., 107 figs., 9 pls. November 13, 1945.

Bulletin 189. A descriptive catalog of the shore fishes of Peru. By Samuel F. Hildebrand. 8vo, xi+530 pp., 95 figs. February 26, 1946.

Bulletin 190. The North American clear-wing moths of the family Aegeriidae. By George P. Engelhardt. 8vo, vi+221 pp., 32 pls. (16 in color). June 28, 1946.

PAPERS PUBLISHED IN SEPARATE FORM

FROM VOLUME 96 OF THE PROCEEDINGS

No. 3195. *Hyporhamphus patris*, a new species of hemiramphid fish from Sinaloa, Mexico, with an analysis of the generic characters of *Hyporhamphus* and *Hemiramphus*. By Robert R. Miller. Pp. 185–193, fig. 9, pl. 11. July 27, 1945.

No. 3196. Notes on recently mounted reptile fossil skeletons in the United States National Museum. By Charles W. Gilmore. Pp. 195–203, pls. 12–19. February 5, 1946.

No. 3197. The onychophores of Panama and the Canal Zone. By Austin H. Clark and James Zetek. Pp. 205–213. February 21, 1946.

No. 3198. Echiuroid worms of the North Pacific Ocean. By Walter Kenrick Fisher. Pp. 215–292, figs. 10–19, pls. 20–37. April 11, 1946.

No. 3199. The osteology of the fossil turtle *Testudo praecursans* Lambe, with notes on other species of *Testudo* from the Oligocene of Wyoming. By Charles W. Gilmore. Pp. 293–310, figs. 20–27, pls. 38–44. March 28, 1946.

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